



TEACHERS' WORLD

1968



DEPARTMENT OF EXTENSION SERVICES,
INSTITUTE OF EDUCATION FOR WOMEN
20-B, JUDGES' COURT ROAD, CALCUTTA-27

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In the imperishable, infinite highest Brahman are the two, knowledge and ignorance, placed hidden. Ignorance is perishable while knowledge is immortal. And he who controls knowledge and ignorance is another (distinct from either).

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FOREWORD

The name of the quarterly magazine of the Extension Services, Institute of Education for Women, Hastings House, Calcutta-27 has been changed. The new name "Teachers' World" seems to be more appropriate and befitting as the magazine deals with various aspects of teachers' problems.

The job of teaching is becoming more and more complicated because of the changing values of the society. Teachers are having a more scientific outlook with regard to class-teaching. Experiments with actual class-teaching are becoming more and more popular with secondary school-teachers. They feel interested in trying out new methods of teaching and also in assessing the comparative merits of the new methods and the traditional ones. The Extension Services Department of the Institute of Education for Women is rendering most useful services to motivate the teachers in the undertaking of new projects in class-room situations.

Teachers in West Bengal usually have to work very hard and cope with innumerable problems. It is encouraging to see that in most cases teachers meet this challenging situation with immense strength of mind and they have an earnest desire to make progress inspite of the difficulties.

The Extension Services Department of the Institute is dedicated to the service of Secondary School teachers and it is certainly gratifying to see that the department has not only been able to create enthusiasm in the teachers' world, but also to maintain it.

KALYANI PRAMANIK

ANNUAL REPORT

Résumé

APRIL 1967 – MARCH 1968

APARAJITA RAY

Co-ordinator

Introduction :

“Ring out the old, ring in the new,”—exclaimed the poet. The year under review reflected in broad perspective the poet’s vision. The new trend was visible in three directions. The fresh thinking of the authorities at Delhi on the over-all approach to the total programme of work was clearly patent in the re-orientation of the aims and objectives of the Department of Field Services, N.I.E., New Delhi and the new planning of work outlined by them. In this Centre also came a new Co-ordinator with new problems to face, new programmes to follow and new ideas to translate into action. As a concomitant corollary, the activities of this Centre also assumed newer dimensions and approach.

In the Annual Zonal Conference of the Co-ordinators of the Eastern Zone held at David Hare Training College, Calcutta, from the 3rd to the 8th July, 1967, important discussions centered round the changed character of Extension Programme Planning over which the D.F.S. devoted much careful thought and action. To quote the authorities—“More than 12 years have passed since this programme came into existence.... We have now reached a stage when it has become absolutely necessary that we should examine critically the effectiveness of our extension programmes and take up appropriate steps in order to give a fresh thinking to bring about qualitative improvement in the programmes.”

Hence formulation of realistic and useful programmes on new lines and principles formed the pivotal point of extension activities.

The year 1967, however, started rather slowly and uneasily. It sought to bridge the gulf of the transitional period which inevitably followed the change in the key figure, the Co-ordinator. In due course the activities of the Extension Centre gained acceleration. With the termination of the autumn holidays, however, the educational firmament in our state was suddenly darkened by political clouds. The deterioration in the political situation led to the closure of schools and disruption of all normal educational programmes. The activities of the Extension Services Department slowed down inevitably.

In spite of all these, the achievement of the Centre might be assessed as a “great step forward” and “a moiety of success” when viewed in the background of diverse factors operative during the period.

I. PROGRAMMES INITIATED BY THE EXTENSION SERVICES CENTRE/UNITS ON ITS OWN

MAJOR ACTIVITIES

Summer Vacation Training Courses :

Summer Vacation Training Courses were organised in subject areas of English, Mathematics, History and Geography from 5th June - 17th June, 1967. The main objective was to deal with specific problems of teaching especially in the Middle school stage. The collaboration of the Head Mistresses of Secondary Schools proved extremely helpful. 30 schools participated with 66 teachers working out the details. A clear cut programme to find out measures to remove the the deficiencies of pupils (Middle stage) in the above-mentioned subjects was chalked out in consultation with the experts and experienced teachers forming the Resource Personnel. The Institutions involved in the training courses were the following :

- (a) Institute of Education for Women, Calcutta.
- (b) David Hare Training College, Calcutta.
- (c) Extension Services Unit, Belur Training College, Belur.
- (d) Asutosh College, Calcutta.
- (e) Shri Shikshayatan College, Calcutta.
- (f) Loreto House, Calcutta.
- (g) Shri Shikshayatan School, Calcutta.
- (h) Bethune Collegiate School, Calcutta.
- (i) Christ Church School, Calcutta.

Lectures and discussions were held both in the morning and afternoon session.

Instructional materials in forms of maps, charts, models, representing teaching units of different subjects were prepared. The participants were allowed to take away these visual aids for use in the schools. Tape Recorder and Film Projector were copiously used. An Educational Exhibition was organised by the participants which proved to be highly interesting. In the closing Function Certificates were distributed to all participants in all subjects.

The following table attempts to give a fairly comprehensive picture of the plan of work in its entirety :—

Subjects	Classes	No. of participants	No. of Resource Personnel	Work Units
English	V, VI, VII	30	<div> (1) A. Bose (2) K. Karlekar (3) K. Bose </div>	<div> (a) Difficult areas of Grammar - structural approach. </div>

					(b) Vocabulary building —its different uses.
					(c) Teaching of Poetry.
					(d) English Pronunciation and Intonation. Pattern.
					(d) Translation, Compre- hension and Precis writing.
					(f) Difficulties of Ben- gali children in Pro- nunciation.
					(g) Phonetics and spoken English.
					(h) Practical works with reading materials.
Mathematics	VI, VII, 14	(1) S. P. Mukerjee	}	4	(a) Unitary Method-per- centage.
	VIII	(2) B. Gupta			(b) Introduction of Geo- metry.
		(3) Uma Ghose			
		(4) Radhashyam Ghose			(c) Algebra — Directed number and their application.
					(d) Arithmetic—time and work.
					(e) Time and distance.
History	VI, VII, 14	(1) Latika Nag	}	3	(a) History of Phoeni- cians—their contribu- tion in spread of civilization.
	VIII	(2) Neela Dey			
		(3) Aparajita Ray Co-ordinator.			(b) History of Jews— their settlement and contribution.
					(c) Spread of Islam.
					(d) Renaissance and Re- formation.
Geography	VI, VII, 8	(1) L. C. Chakraborty	}	3	(a) Volcano
	VIII	(2) G. Mazumder			(b) Life history of a river.
		(3) K. Dutta			(c) Classification of rocks.
					(d) Teaching materials in Geography.

Puja Vacation Workshop :

A workshop in History was held during the Puja Vacation for 9 days from October 23 to October 31, 1967, on the Project, "Development of Instructional Material in History." The interesting topic selected from World History Syllabus was "The Rise of Japan as a World Power." Prior to the holding of the course the proforma with particular reference to defining the objectives and concepts underlying the selected topic was discussed threadbare by the experts in a meeting. A short working paper on the above items with guide lines was drafted and cyclo-styled for guidance and circulation among Resource Personnel and Teacher-participants from different schools. The number of schools involved was 14 and the number of participants from different schools was 17. The smallness in the number was quite in consonance with the policy favoured by the D.F.S. that such Projects should be worked out by a small but enterprising group of teachers who will evince real interest and initiative in the work. The Resource persons involved were four in number including the Co-ordinator. The experts contacted belonged to Calcutta University Teachers' Training Department, Non-Government Teachers' Training College (Women), Calcutta, and State Evaluation Unit of the Bureau of Educational and Psychological Research. Much help was rendered by the Japanese Consulate in Calcutta in enlivening the project by lending suitable maps, wall-pictures, posters, picture-cards, books and booklets and documentary films showing life and culture of the Japanese people. A highly interesting Exhibition of maps of Japan, pictures, chart of Japanese-language, time-lines, etc., was put up by the participating teachers. Preparation of Instructional material like—development of a high level content course to serve as Teachers' Guide and Visual Aids like Maps on Asia and Japan, pictures on Buddhist Temple, Image of Buddha, a Gate of a Shinto Shrine, dress and Hairstyle of the Japanese, important cities of Japan, charts on scripts of Japan, time-lines on the period, etc., proved highly educative.

A table below explains the scheme of work :

Subject	Classes	No. of participants	No. of Schools	Topic	Resource Personnel
Development of Instructional Material in History	X, XI	17	14	Rise of Japan as a World power.	(a) Prof. Jyoti Prasad Banerjee (b) Chhaya Bhattacharya (c) Neela Dey (d) A. Ray (Co-ordinator).

Field Trips

Educational trips were organised in connection with Vacation Courses

- (1) Birla Planetarium—Day's Sky
- (2) St. Paul's Cathedral
- (3) St. John's Church Cemetery—Mausoleum of Job Charnock
- (4) Asutosh Museum.

History Teachers' Association of Secondary Schools for Girls

The History Teachers' Association was formed in a meeting attended by a fairly large number of teachers of history from Girls' High and Higher Secondary Schools. The Association defined its objective in clear terms, viz. to motivate the teachers of History to try new techniques of teaching and to enrich their knowledge of content as well with a view to making classroom instruction in History more stimulating and instructive.

Evaluation Seminars :

Two Evaluation Seminars were held on Experimental Projects carried in two schools one in the Urban area and one in the Muffusil area in subjects as below :—

- (1) Improving the Teaching of English Vocabulary from classes VII to XI —conducted by Sakhawat Memorial Government Girls' Higher Secondary School, Calcutta.
- (2) Teaching of Bengali through Club activities conducted by Khantura Girls' Higher Secondary School, 24-Parganas.

In both the cases reporting on the working out of the Projects was done by the Teachers concerned in their respective fields. This was followed by discussions and constructive criticism offered by educationists who were present on the occasion. The schools organised interesting and educative exhibitions consisting of charts, pictures maps, scrap books, graphical representation and test items etc. bearing on the particular projects. In this way proper assessment of the work in both the schools was sought to be done.

World Unity. Day :

The Extension Centre proposed to celebrate the World Unity Day involving a large number of Secondary Schools for Girls under its jurisdiction. For this purpose a circular letter issued by the Centre was sent to the schools. It emphasised the idea of promoting world understanding and amity in the minds of school children by celebrating the occasion with music recitation, dance, drama and display of costumes of different global nationalities emphasising the concept of the oneness of the world. All the preliminaries were finalised and the schools were enthused to observe the day in a fitting manner. But unfortunately due to various unforeseen circumstances the scheme could not materialise.

Week-end Apparatus Workshop in Science :

A week-end workshop was organised for Science Teachers for Apparatus making in Science with the following activity :—

- (1) Model on the Life History of Monocystis.

School Guidance Services :

The following Schools were given regular guidance and series of discussions were held in the areas listed below :—

Many of these being common, these are not mentioned against each of the institution to avoid repetition.

- (1) Arya Kanya Balika Vidyalaya.
- (2) Baghbazar Multipurpose Girls' School (Govt. sponsored).
- (3) Bethune Collegiate School.
- (4) Binapani Purdah Girls' School.
- (5) Beltala Girls' School.
- (6) Balika Siksha Sadan.
- (7) Ballygunge Siksha Sadan.
- (8) Binodini Girls' School.
- (9) Chetla Girls' School.
- (10) Calcutta Girls' Academy.
- (11) Entally Hindu Balika Vidyalaya.
- (12) Holy Child Institute.
- (13) Jodhpur Park Girls' School.
- (14) Khantura Girls' School.
- (15) Lake School for Girls.
- (16) Govt. Girls' Multipurpose Higher Secondary School, Alipore.
- (17) Muralidhar Girls' School.
- (18) Madhya Kalikata Balika Vidyalaya.
- (19) R. K. M. Nivedita Girls' School.
- (20) Sir Ramesh Mitter Girls' School.
- (21) Sishu Vidyapith Girls' School.
- (22) S. S. Jalan Girls' School.
- (23) Shri Shikshayatan Girls' School.
- (24) Sakhawat Memorial Girls' Higher Secondary School.
- (25) Victoria Institute for Girls.

Areas of discussion and purposes :—

- (1) Experimental Projects.
- (2) Development of Instructional Material.
- (3) Seminar Reading Programme.
- (4) Good School Practices.
- (5) Summer Vacation Course.
- (6) Puja Vacation Workshop.
- (7) Summer Institute organised by the N.C.E.R.T.
- (8) World Unity Day.
- (9) History Teachers' Association.
- (10) Experimentation in Teaching Methodology.
- (11) Evaluation.
- (12) Library Service.
- (13) Audio Visual Aids and preparation of Apparatus.
- (14) School Improvement Programme.
- (15) Science Fair.
- (16) Film Shows.

- (17) Hobby Clubs.
- (18) Teacher's Clubs.
- (19) Discussion on the Method of teaching in history and a Demonstration lesson.
- (20) General Discussions on specific problems of teaching in English, Mathematics, Economics and Science.

ANCILLIARY ACTIVITIES

(1) Consultation Meetings held with the Evaluation Officer and Senior Technical Assistant of State Evaluation Unit (Bureau of Educational and Psychological Research. Evaluation Procedure to be adopted in connection with the courses. (2) Meeting of Resource Persons held for defining the objectives and Planning clear-cut-programmes for Training Courses. (3) Group Meetings with subject teachers held on specific problems of classroom teaching and their suggested solutions for motivating the teaching-staff for fresh adventure in Methodology and developing a scientific outlook in their professional field. (4) Meetings organised in several forward-looking schools for initiating a drive on School Improvement Programmes such as Students' Council, Students' Parliament, House System, etc. (5) Discussion meetings held with the Principal and Hony. Director and Co-ordinator of David Hare Training College, Calcutta, about the joint planning on an Evaluation Seminar and other Extension Programmes for Heads of Institutions and Senior teachers of schools. (6) Meeting of Science Teachers held in connection with the holding of Annual Science Day.

II. PROGRAMMES ASSIGNED TO THE CENTRE BY THE STATE DEPARTMENT OF EDUCATION OR OTHER AGENCIES (NATIONAL OR STATE)

The Centre aided and assisted organisation of College Science Fair held by the Central Science Club of the Institute of Education for Women by helping establishment of school contact and participation of a fairly large number of Schools and by other ways.

The two annual functions were held on the following days :

- (a) Annual Science Day held on Thursday, the 27th July, 1967.
- (b) Annual Science Day held on 26th and 27th March, 1968.

III. A. PROGRAMMES SUGGESTED BY DEPARTMENT OF FIELD SERVICES :

Experimental Projects :

In pursuance of the directive of the Department of Field Services, N.C.E.R.T. per reference No. DFS/EX/68, dated 12-10-67 on the subject—"Projects and Experiments in Secondary Schools"—Proposal for financial assistance for the year 1968-69," the First Workshop was held on "Projects and Experiments in Secondary Schools" for four days from January 16 to January 19, 1968. In a Circular letter issued to schools the main objectives of the scheme were explained. These

were to encourage the Secondary Schools in trying new practices and evaluating them with the object of ensuring improvement in class room instruction, administrative practices, etc., and to motivate them in following up results of the Experimental Projects to develop the same as good school practices.

The First Workshop met with the express purpose of assisting the schools in drawing up the outlines of suitable projects and experiments. The scheme was duly publicised to all schools; but it was a fore-knowledge that only a few enterprising schools would take interest in it. In the opening session of the workshop six teachers from five schools participated. It is encouraging to note here that Moffussil schools also came forward and took active interest in these projects. The work, however, was actually taken up by three schools, viz., Baghbazar Multipurpose Girls' School (Government sponsored), Calcutta, Rani Binode Manjari Government High School for Girls' Jhargram, and Muralidhar Girls' School, Calcutta.

In this Workshop guidance was given to the Schools in selecting the problems for projects and experiments. A guide note on preparing proposals for projects and experiments including areas of experiments in projects, criteria for selection was cyclostyled and distributed. An illustrative list of topics was also distributed among the participants. They were also oriented about the technique of preparing project proposals. Four projects were decided to be taken up in four subject areas, viz., English, Geography, Psychology and Mathematics.

Valuable guidance was rendered by the three experts, e.g., Dr. Kalyani Pramanik, Principal, Bureau of Educational and Psychological Research, Sri Kamal Kumar Chatterjee, Evaluation Officer, Evaluation Unit, Bureau of Educational and Psychological Research, and Srimati Kalyani Karlekar, Assistant Professor of the Institute of Education for Women. Besides, a stimulating talk in the inaugural function of the workshop on the concept and purpose and value of Experimental Projects by Sri H. B. Majumdar, Deputy Director of Public Instruction, Government of West Bengal, proved extremely helpful. In the concluding session concrete suggestions for improving upon the Project Proposals were offered by Dr. J. C. Dasgupta, Principal, David Hare Training College, Calcutta.

At the end of the workshop the schools mentioned earlier were requested to prepare the details of the project proposals before the commencement of the next workshop.

(B) The Second Workshop on Projects and Experiments for the Academic Year 1968-69 was organised between 12th and 14th February. In this workshop four Project Proposals were finalised. Ultimately, however, the Project plan on Mathematical problem taken up by Muralidhar Girls' School could not be finalised by the teacher concerned.

The work on the above-mentioned projects was done in accordance with the Guide Notes regarding "Scheme of Assistance" for Projects and Experiments in Secondary Schools received by the Centre from the Department of Field Services, N.I.E. The Resource Personnel were the same as before.

The table below fairly explains the entire programme of work :

Title of the Project	Character	School	Teacher Conductor	Consultant
1. An Enquiry into the quality of Intellectual Progress and Mental Health of the Pupils of Class VIII with a view to improve the quality of the both	Experimental Project	Baghbazar M. P. School (Govt. Spon.) Calcutta	Tutu Ghosh, Asst. Teacher	Dr. K. Pramanik Mr. K. K. Chatterjee
2. Improvement of Composition work in English	Experimental Project	Do.	Arundhati Bose, Asst. Teacher	Sm. K. Karlekar
3. A study of the Efficacy of Different Methods of Teaching Geography	Developmental Project	Rani Binode Manjari Govt. High School for Girls, Jhargram, Midnapore	Kalpna Sen Asst. Teacher	Dr. K. Pramanik

The final Project Proposals were submitted to the Screening Committees set up by the Extension Services Department. These were duly scrutinised and forwarded to the State Director of Public Instructions. One copy of each Project Proposal was also sent in advance by the Department to the Principal of the Regional College of Education, Bhubaneswar. The final approval is awaited.

It is proposed that the Co-ordinator with the assistance of experts will help the schools in implementing the three Project Proposals submitted to the Regional College of Education, Bhubaneswar, when they are finally approved for financial grants.

Production of Instructional Material :

(a) Summer Vacation Workshop

The following types of Instructional Material were produced in subjects as below :

- (1) *English*. Substitution tables with uncountable nouns—verbs (finite and anomalous)—Model stimuli for teaching poetry—Grammar teaching with the help of charts.
- (2) *Mathematics*. Geometrical Models—Charts on measurement of heights and distances, width of a river, on permutation and combination showing the different arrangement.
- (3) *Geography*. Map of Japan—Cross section model of a volcano—models on river and on Limestone, Basalt, Granite, Quartzite.
- (4) *History*. Maps of the trade route and important Phoenician Colonies—spread of Islam—Europe showing centres of revival of learning—Illustrative charts on the Ten Commandments of Moses—teaching of Islam—Pictorial charts on important figures

in the Renaissance period, Diagrams—showing the duration of the Renaissance period.

(b) *Puja Vacation Workshop*

The following materials were produced in History as below :

Maps—Asia and Japan

Pictures—Buddhist Temple—Image of Buddha

A gate of a Shinto Shrine—Japanese pottery

Transportation in old Japan (junk, Railway)

Transportation in old Japan (Kage, Jinrikisha)

The dress of the Japanese (Samurai, the old Japanese dress, typical Kimono)

Hair-style of the Japanese—Important cities of Japan

Charts—Some scripts of Japan

Time-line

Identification, Promotion and diffusion of Good Practices :

Three tested Good School Practices have been collected as below :

(a) Students Parliament—Baghbazar Multipurpose Girls' Higher Secondary School (Government Spons.) Calcutta.

(b) Literary and Dramatic Club—Jodhpur Park Girls' Higher Secondary School, Calcutta.

(c) Balika Samaj—Sri Siksayatan School, Calcutta.

Promotion of Effective Use of Libraries :

Educational Poster, and pamphlets and journals like "A Career in Science for you," "Audio-Visual Handbook" and "The Teacher Speaks" have been distributed to schools to encourage among teachers the habit of using Library books for reference.

Seminar Readings :

Extensive Publicity was sought to be given to Seminar Reading Programme through discussions of the aims, objectives and the procedure of the scheme and liberal distribution of the literature on the subject. No school, however, has so far come forward with any such programme.

Publication :

It has been decided that the Extension Services Department will henceforth bring out an Annual number, consisting of reports on Extension Programmes and activities of Schools and other thought-provoking articles to focus attention on practical problems of school teaching and offer useful suggestions as to their solution. As it is meant to be a Teachers' Forum it has been christened as the "Teachers' World." The Centre also desires to bring out occasional brochures on important activities of the Extension Services Department for distribution to schools under its jurisdiction.

B. Services :*Use of Extension Services Library by the Schools :*

(a) Books issued to B. T. Students	490	Approximately (Annual)
(b) Books issued to outsiders	66	" "
College Staff	47	" "
(c) Reading Room used by	88	" "

Audio-Visual Education and Utilisation of Equipment provided to the Centre :

Film shows were organised in connection with the vacation training Courses.

Summer Vacation Courses :

The following Educative films full of Geographical interest were shown :

- (1) Physiography of India
- (2) Indo-Gangetic Plain
- (3) The Climate of India
- (4) The Mayurakshi Dam
- (5) Rocks and minerals

The following Japanese Documentary films were shown on the Life and culture of Japan during the Puja Vacation Training Workshop in History :—

- (1) The Architecture of Japan
- (2) Living Arts of Japan
- (3) Japanese Doll
- (4) Kimono
- (5) The Imperial Family
- (6) Kabuki

Use of T.C.M. Equipment :

- (1) Epidiascope and Film strip Project have been extensively utilised for projective enlargement of maps, charts, pictures and for showing film strips, e.g.

- (i) Life in the Arctic Region
- (ii) Landmarks of India
- (iii) Economic Development in the Eastern part of North America

- (2) Tape Recorder and Record Player have also been regularly used for recording special lectures, speeches, music, etc., and such recording is reproduced to B.T. trainees and teacher participants in Seminars and Workshops and also in Annual Sports and Education Week in the Institute.

- (3) 16 mm. Movie Projector has been extensively used for showing the following Educational Films in connection with College and Extension Centre Programmes :

- (a) Bulletin Boards for Effective Teaching

- (b) Using Analytical Tools
- (c) Motivating the Class
- (d) Documentary films on the life and culture of Japan.

These films have been lent by Consulate of Japan, British Council and Film Division of India.

IV. CONSULTATIONS HELD WITH ADVISORY COMMITTEE, STATE DEPARTMENT OF EDUCATION, INSPECTORS, COLLEGE FACULTY MEMBERS

Consultations held with the Chief Inspector, Women's Education, State Department of Education for effective Co-ordination between Secondary Schools and Extension Department.

A Meeting of the Advisory Committee held on April, 12th 1967 to discuss Summer Vacation Courses, Science Fair, Good School Practices, Seminar Reading Programme and Annual Programme for 1967 etc.

The Second Meeting of the Advisory Committee scheduled to be held on December, 21st 1967 was adjourned for failure of quorum owing to the disturbances in the city.

Techniques Adopted

- (1) Seminars, Workshops and Training Courses
- (2) Panel Discussions
- (3) Correspondences
- (4) School visits
- (5) Educational Exhibitions and Fairs
- (6) Film Shows

V. ANY OTHER POINT

The Co-ordinator participated in the Zonal Conference of Co-ordinators held at David Hare Training College in July from 3rd to 8th, 1967.

Closure of Schools from 22nd November to 3rd December, 1967 and 20th December, 1967 to 3rd January, 1968, which hampered very much the implementation of Extension Programmes.

Difficulties :—It has been a common experience with the Secondary Schools for Girls of the State that they are generally extremely busy with Admissions, Examinations, sending up students, introducing new routines and Programmes of studies for greater part of the year. The Headmistresses and the teachers find little time and scope for new experimentations in teaching as they have their own pressing problems and pre-occupations. This centre had to face great difficulties to motivate the schools to take up new programmes and projects. However, it can be claimed that some measure of success has been achieved and persistent efforts have yielded some desirable results.

THE SUMMER VACATION WORKSHOP

[The Summer vacation Training courses were held under the auspices of the Extension Service Department, from June 5th to June 17th, 1968, in four streams viz., English, Mathematics, History and Geography. It was quite encouraging to see that as many as 66 teachers participated from 30 schools. The assemblage of Resource Personnel from different educational institutions was quite heartening. Fruitful work was done in the four subject areas both in the fields of content and methodology. The educational exhibition organised on this occasion proved really interesting. The workshop ended with the distribution of certificates to the teacher participants who went back to resume their normal duties with a happy feeling of satisfaction.]

[A. RAY]

REPORT ON THE REFRESHER COURSE IN ENGLISH

A refresher course was arranged for 12 days, starting from 5th June, to 17th June, 1967, under the auspices of the Extension Service Department of the Institute of Education for Women, Calcutta. Teachers of the Secondary Schools from Calcutta and its neighbourhood attended the course. Miss A. Ray, the Co-ordinator of the Extension Services Department of the Institute, grouped the participants according to the subjects they teach in schools. There were, however, 30 participants in the course for teaching English.

We attended the classes in two shifts, one in the morning, generally conducted by Miss A. Bose, Vice-Principal and Professor of the Institute, the other in the afternoon conducted by Mrs. K. Karlekar, Asstt. Professor of the Institute and Mrs. K. Bose of Bethune Collegiate School.

Miss A. Bose stimulated our interest in the Psychology and general principles of teaching English to Indian children, in the beginning, then she concentrated on the following topics with greater details :—

- I. Phonetics—(a) Sound pattern in English—Vowels—consonants and diphthongs.
(b) Pronunciation—the main difficulty of Indian children in the pronunciation of certain English sounds, was demonstrated with effective remedial procedures.
- II. Vocabulary—its importance in the comprehension and composition lessons.
- III. Planning a combined comprehension and composition lesson.
- IV. Teaching of poetry—how to stimulate the power of appreciation in children and to promote their skill of revealing the beauty of

words in poetry :—Actual demonstration of the various steps in teaching poetry was given.

- V. Structural approach—a detailed picture of it was presented with the formulation of substitution table, etc.
- VI. Verb groups—with special emphasis on Finite and Anomalous Verbs, e.g. “to be”, “to have”, “need” and “dare”.
- VII. The significance of the passive form in English.
- VIII. Use of Articles.
- IX. Idioms and phrases.
- X. Signals of good style in English Composition.

In the afternoon Mrs. K. Karlekar discussed the following topics :

- (i) How to frame questions correctly.
- (ii) How to make vocabulary easy and interesting to the pupils so that a certain amount of spontaneity is maintained in their expression.
- (iii) Use of apparatus and charts of words for classes V, VI and VII. We also made a few charts ourselves under her guidance.
- (iv) How to make the lesson plans interesting.
- (v) Structural approach in general.
- (vi) Teaching of Present and Present Continuous tenses through handwriting.
- (vii) Teaching of poetry.

The most important point that she repeatedly stressed was the “Teachers’ initiative.”

To Mrs. K. Bose we presented our common problems of Teaching English in Bengali medium schools. She discussed the following topics :

- (I) Tables and structure of Sentence with the help of charts—for Junior and Senior classes.
- (II) The fundamentals of framing questions.
- (III) Teaching of Grammar and structure with the help of charts.
- (IV) The importance of word-order in teaching English.
- (V) Teaching of analysis.
- (VI) Translation for the Senior classes.
- (VII) Precis-writing—its technique.
- (VIII) How to make ‘a dialogue’ lesson interesting.
- (IX) Special problems of teaching English in English medium schools—as one participant from an English medium School presented a few problems.

All the topics mentioned above were discussed by Miss. A. Bose, Mrs. Kalyani Karlekar and Mrs. K. Bose through lecture as well as demonstration and special reference was made to the preparation of a teacher’s notes of lesson in each particular case. All of them stressed on two objectives mainly.

- (i) To stimulate pupils’ interest for the subject,

- (ii) To apply new and lively methods to sustain pupils' interest *e.g.*, the application of the direct method in its various forms *viz.* miming, dramatisation, recitation, etc. was strongly recommended.

It will be no exaggeration to say that during this short course we gained considerably in learning some ways to make our lessons really meaningful, significant and interesting to the children. We are fully convinced now that the pupils' interest is to be stimulated and that unless there is any chance of spontaneous enjoyment and participation in the lesson, they do not learn anything.

We are really grateful for all that we learnt from the teachers who so very patiently listened to us and offered valuable suggestions to deal with them.

SM, NILIMA KURUP.

REPORT OF THE MATHEMATICS GROUP

Fourteen teachers took part in the Summer Vacation Training Course in Mathematics. Most of them were untrained and they expressed their difficulties in teaching some topics in mathematics. These topics were taken up for discussion.

The nature of mathematics being abstract, the greatest difficulty encountered in teaching the subject to young pupils is in making it interesting to them and in making a clear conception of the topics. To solve this problem, we should present the topics with the help of concrete examples and models. All examples should be taken from real life. In this course some models and charts were prepared.

The following topics were discussed :—(1) Introduction to Algebra, (2) Directed Numbers, (3) Permutations and Combinations, (4) Quadratic Equations, (5) Recurring Decimals in Arithmetic, (6) Metric System, (7) Percentage, (8) Time and Distance, (9) Cubic Measurement, (10) Introduction of Geometry to beginners and (11) the Introduction of Statistics.

While introducing Algebra the advantage of Symbolic representation should be clearly shown with the help of various examples taken from common life. Different formulae also may be discussed. Thus the rule for finding the area of a rectangle may be symbolically expressed as $A = L \times B$, where A stands for area and L and B are the length and breadth of the rectangle.

In introducing directed numbers we may consider temperature below 0° at 0° and above 0° . We may also consider the examples of a man who has some debt, one who has no debt and no money and one who has some money. Here emphasis is to be given on the idea of Zero which is nothing but a point of reference, a standard and which is arbitrary. Once the Zero is decided, some measurements are made on one side or the other. One side is called plus (+) and the other minus (-). The following examples may be used :—

Profit (plus), loss (minus), no profit or loss (0) ; income (plus), expenditure (minus), none of these (0) ; above sea-level (plus), below sea-level (minus),

at sea-level (0); motion upwards or to the right (+), motion downward or to the left (-) and no motion (0); surplus, deficit and neither, and so on.

When the idea of directed numbers is clear, addition and subtraction should be taught. Multiplication of directed numbers may be illustrated by considering the motion of a train towards North or South from a particular Station before and after a particular time. Division may be considered as the inverse process of multiplication. The rules for addition, subtraction, multiplication and division of directed numbers should be generalised after considering a few particular cases.

While dealing with examples on Permutations and Combinations, Charts showing the different arrangements may be found useful.

Pupils often feel bored when they learn recurring decimal. In order to make it interesting, the relation of recurring decimals with vulgar fractions should be shown clearly. Pupils will be interested to learn that fractions having denominators whose prime factors consist of powers of 2 and 5 only are always converted to terminating decimals. But when they have other denominators they will give rise to recurring decimals. Decimals equivalent to fractions having denominators 7, 13, 17, etc., where the digits recur over and over again may be discussed. The rules for converting recurring decimals to vulgar fractions should be generalised after observing a few particular cases. The rules for addition and subtraction of recurring decimals by making them similar should also be generalised.

The history of Metric system may be discussed while introducing the subject. The length of a metre should be shown to the pupils. The relation of the system with the decimal system should be pointed out. The application of the metric system in the measurement of weight and money should be discussed with the help of examples from common life. Various tables may be prepared with the help of the pupils.

The idea of cubic measurement should be given with the help of models, rectangular boxes and bricks. The idea of the unit of volume, i.e., 1 cubic unit should be made clear at first. Rectangular solids of different sizes may be shown by arranging a number of cubes of unit volume. Thus for example when three such cubes are arranged in a row and three such rows are arranged side by side, we have a rectangular parallelepiped whose length and breadth are 3 units and thickness is 1 unit. The volume of this block is 3×3 cubic units. When we put another block of similar size on it we have rectangular solid having length, breadth and thickness equal to 3 units, 3 units and 2 units respectively. The volume is seen to be $3 \times 3 \times 2$ cubic units. Generalising the result we get the volume of a rectangular parallelepiped to be equal to length \times breadth \times thickness. The area of the surface and the different faces may be easily obtained. Models may be prepared with the help of plywood or card-board.

In the lower classes geometry should be introduced with the help of various models. These models may be made with the help of card-board or by paper-cutting. Various examples taken from real life are also useful. Thus the genera-

tion of angles may be made clear with the example of a door, the hands of a clock, etc.

In solving geometrical problems the analytic method is very useful. This is also useful in proving different theorems and in making constructions.

Some charts and models were made showing :

- (1) different graphical representations of given data
- (2) Solid figures with different faces (model)
- (3) the measurement of height with the help of similar triangles
- (4) the application of Permutation and Combination
- (5) application of Trigonometry in measuring the height of a mountain whose summit cannot be reached and
- (6) application of Trigonometry in measuring the width of a river.

SM. SUSHAMA DEWAN

REPORT ON REFRESHER COURSE IN HISTORY

Thirteen teachers from different schools of West Bengal participated in the Summer Vacation Refresher Course in History held under the auspices of the Extension Department of the Institute of Education for Women in June, 1967. The period of the course was from 5th to 17th June (thirteen days in all). It was guided by Sm. Latika Nag of Shri Shikshayatan School and Sm. Neela De of Loreto Training College; the programming of the course was done under the supervision of Sm. Aparajita Ray, Co-ordinator and Professor of History in the Institute of Education for Women.

After a brief general talk on the nature and usefulness of the short course by Mrs. N. Das, Principal of the Institute, the teacher-participants were arranged group-wise and settled down to work. A general questionnaire was thrown to all participants of the History group, viz. (1) How do they teach History in School? (2) What is the pupil-response? and (3) Are they satisfied with their methods of teaching and their exposition of the topics? To this, different answers were received, indicating in general uncertainty on the part of the teachers regarding teaching methods—due to (a) vastness of the course, (b) shortage of time and (c) their inability to make history teaching interesting to the pupils. As the first two of these were beyond the scope of a Refresher course, concentration was made on the third one.

Certain difficulties were observed among the three groups into which the participants were divided—classes VI, VII and VIII, regarding the topics, viz., "The Phoenicians and the Jews" (class VI), "Spread of Islam" (class VII), and "Renaissance and Reformation" (class VIII). The teachers admitted that pupils always felt bored and they could not make these topics interesting. It seemed that difficulties were mainly due to the students having no previous knowledge about these topics and in some cases want of adequate knowledge on the part of the

teacher. Rather a specific case for the third problem and as such it really forms a part of the general difficulties of teaching History.

An experiment was made to enlarge the background of the topic to be taught. They were asked not only to read several text books but also to have a look at the detailed reference books, where the subject is treated more or less in cause and effect relationships. It was found that the teachers after following the procedure felt themselves more competent to make their lessons. The principles of teaching were explained to them and the teachers in three groups drew their respective plans with the help of the resource person. The notes of lesson were duly corrected and returned to them with suggestions for improvement. It may be observed that they were not trained teachers, but they could plan notes on lesson when asked to do so. This gives a positive direction in which further research work must be conducted. There is here a positive source of making ordinary teachers' lessons more interesting if this procedure is followed. However, this is by no means a conclusive statement.

Earlier it was found out that they had recourse to no aids in making their lessons interesting. The principle of concretizing the lesson was explained and they were engaged in preparing aids relevant to the topics. They made maps and charts, diagrams, some of them were surprisingly good. Facilities of epidiascope being available, the aids were comparatively easily made. As a result, their interest in lesson planning grew and it may be observed that if scientific aids are given to these teachers they may take interest in the subject of their teaching and make their teaching more interesting.

Teachers also worked on evaluation by framing new-type tests for improving upon the stereotyped form of subjective type of questions and for correct appraisal of students' knowledge of History. Some concrete suggestions in this respect were made by Sm. Latika Nag. This item requires a fuller treatment and may be taken up as a project for some future course.

To relieve the monotony of continuous work and also to teach them incidentally the value of excursions in teaching, History trips were arranged to St. Pauls Cathedral, St. John's Church Cemetery where stands the mausoleum of Job Charnok, the Ashutosh Museum and the Birla Planetarium. They were helped to get acquainted with the raw materials of History and briefly lectured on how to use them. On the last day, an exhibition was held where the hand work of the teachers were exhibited and earned due praise from visitors and a small but very pleasant ceremony marked the end of the thirteen-day training course.

Reference Books :

1. The World Book Encyclopaedia,
Field Enterprises Educational Corporation
Relevant Volume.
2. The World's History (Revised Edition),
Lane, Goldman and Hunt

3. Knowledge (colour magazine, encyclopaedia)
Relevant Volumes.

CHARTS MADE :

Class VI.

1. Map showing Phoenician trade-route and the site of their important colonies, with pictures of galley-ships in the routes.
2. Chart enumerating the Ten Commandments of Moses, with his picture on top and pictures of Ark of Covenant and the seven branched Candle Stick on corners.

Class VII.

1. Map showing the Conquest of Islam
2. Chart on the Teachings of Islam
3. Pictorial chart with a man calling the faithful to prayer from the top of a minaret and the Kalima written in Arabic script with the Bengali translation.

Class VIII.

1. Map of Europe during the Renaissance period.
2. Diagram showing the duration of the Renaissance period.
- 3 and 4. Pictorial charts of some important personages of the Renaissance period.

NEELA DE

REPORT ON THE REFRESHER COURSE IN GEOGRAPHY

Eight teachers from different secondary schools of West Bengal attended the course on Geography held at the Institute of Education for Women, under the auspices of the Extension Services Department of the College for 12 days. There were, however, 8 participants in the course for teaching Geography.

The session opened on the forenoon of the 5th June, with a welcome address by the Hony. Director, which was followed by the Co-ordinator. Then the participants were divided into their respective interest groups. The Geography group conducted its work under three different resource persons—Mrs. Krishna Dutta, Prof. L. C. Chokravorty and Mrs. G. Majumdar.

In our initial discussion problems with regard to teaching of Geography, were invited and then they were classified into three groups :

- (1) How to prepare a syllabus
- (2) Instructional materials in Geography and how to prepare them
- (3) How to present Map at different grades.

The first topic was dealt by Mrs. G. Majumdar and we worked mainly on the prescribed syllabus for class VII. The second and the third problems were dealt by Mrs. K. Dutta and Prof. L. C. Chakravorty. We selected some important

topics from different classes from VI to X and each of us was allotted particular assignment.

Prof. Chakravorty gave us an enlightened talk on use of colours which was supplemented by the use of conventional signs by Mrs. Dutta.

Instructional materials in Geography refer to :

- (i) The Blackboard and the chalk.
- (ii) Display by pictures, diagrams, maps, charts, etc.
- (iii) Display by projectors.
- (iv) Models, landscape, globe and others.

For class VI—we selected one topic :

- (i) Japan—its habitat, economy and society.

For class VII—our topics were :

- (i) Cross-section model of a Volcano
- (ii) Australia—a relief model
- (iii) Role of Nile on the economic development of Egypt

For class VIII

- (i) Life history of a river showing different geomorphological features.
- (ii) Classification of rocks—and their typical topographical features—e.g., Karst topography, Basalt topography and marble topography.

For class X—Ports and Harbours :

Besides this we went through different reference materials and prepared a synopsis based on library work. To make our ideas clear the reading was supplemented by the preparation of models on different topics mentioned above.

In addition to our daily work we had an interesting programme in the form of film shows which were highly educative and full of geographical interest. These were, 'Physiography of India,' the 'Indo-Gangetic Plain,' 'The climate of India,' 'The Mayurakshi Dam,' and 'Rocks and Minerals.' We also visited Birla Planetarium, where we were shown that day's sky. We gratefully mention that the Department kindly arranged for conveyance.

In the conclusion it may be said that within this short period we have gained much from this training. We have developed a new outlook and a spirit of approach, which, if introduced in the classroom, might be of absorbing interest and helpful to the pupils to form clear ideas of this subject.

MR. D. UPADHAYA AND MISS BHARATI SARKAR

"An academic system without the personal influence of teachers upon pupils is an arctic winter."

F. W. Nietzsche

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ENGLISH INSTRUCTIONAL MATERIAL PROFORMA (Contd.)

(g) <i>Teacher Resources</i>	(h) <i>Valuation, procedures and techniques</i>	(i) <i>Additional Comments</i>
<p>Modern English—Osman Neil.</p> <p>Direct English—Dr. Hill.</p> <p>A guide to pattern and usage in English—Hornbey.</p> <p>English Teachings as a foreign language—French.</p> <p>English in Tables—French.</p> <p>Outlines of Phonetics—Daniel Jones.</p> <p>Journals : English language teaching.</p> <p>English—Sentence pattern—Hornbey.</p> <p>Stage I & II.</p>	<ol style="list-style-type: none"> 1. Writing out sentences from the substitution tables. 2. Filling in gaps (for Voc.). 3. Constructing teaching materials for passive voice, articles, etc. 4. Preparing charts and models to be used in specific lessons. 	

ENGLISH INSTRUCTIONAL MATERIAL PROFORMA

(a) <i>Major Concept</i> (Basic understandings of Big Ideas)	(b) <i>Content</i> <i>Outline</i>	(c) <i>Unit objection</i> Knowledge, understanding, skills, attitudes
<ol style="list-style-type: none"> 1. English—Pronunciation & intonation pattern. 2. Vocabulary—its importance in composition. 3. Difficult areas of Grammar—structural approach. 4. Translation. 5. Comprehension & Precis writing. 6. Teaching of Poetry. 	<ol style="list-style-type: none"> 1. Long vowels and diphthongs and difficult consonant sounds for Bengali children. 2. Same words giving different meaning in different areas. Lexical versus Structural vocabulary compound. 3. Word order—in questioning and statement—use of articles, passive voice—finite and anomalous verbs, etc. 	<ol style="list-style-type: none"> 1. To enable the teachers to read a pronouncing Dictionary correctly and also to equip them with the knowledge and confidence to read the children properly. 2. To prepare teachers for offering better help to children for English composition. 3. To help teacher for creating an atmosphere of poetry appreciation.
(d) <i>Classroom Procedures</i>	(e) <i>Student activities</i>	(f) <i>Student Materials</i>
<p>Discussion, explanation & mutual question, presentation of an imaginary demonstrations, use of charts, types, pictures, and films.</p>	<ol style="list-style-type: none"> 1. Preparation of charts and substitution table on different Grammatical points, preparation of models to be used in a poetry lesson. 	<ol style="list-style-type: none"> 1. Books on methodology. 2. English Journals. 3. Books prepared by S.B.E. 4. Visit to church, etc. 5. To acquaint the students with certain English Structure and technical vocabularies.

HISTORY INSTRUCTIONAL MATERIAL PROFORMA (Contd.)

4

Subject
History

Phoenicians and the Jews
Unit

VI
Class

(d) <i>Classroom Procedures</i>	(e) <i>Student Activities</i>	(f) <i>Student Materials</i>
Discussion, exposition and questioning. Use of maps, charts, pictures and diagrams.	(1) Preparation of map of the Fertile Crescent with Judae and Phoenicia marked properly, Drawing of the Galley ship, temple of Jehova etc. Making a chart comparing the Phoenicians with the Jews in everything that is known about them.	1. Text book. 2. Children's Encyclopaedia. 3. Simple Source book.
(g) <i>Teacher Resources</i>	(h) <i>Evaluation Procedures & Techniques</i>	<i>Additional Comments</i>
A. 1. Text book of several schools. 2. The World Book Encyclopaedia. 3. The World's History (Rev. Ed.) (Lane, Goldman & Hunt). 4. Knowledge Encyclopaedia.	1. Tick the right answer in the followings : (a) The greatest king of Israel was— (i) David, (ii) Solomon and (iii) Moses.	

Subject : *History*

HISTORY INSTRUCTIONAL MATERIAL PROFORMA

Phoenicians and the Jews
Unit

40 minute
Period

VI
Class

(a) Major Concepts	(b) Content Outline	Unit Objectives (Knowledge, understandings, skills, attitudes, Applications)
<p>(Basic Understanding or "Big Ideas")</p> <p>1. History is the study of past societies and civilisations which (1) reveals the circumstances and environment under which those people lived and how it had affected their life, culture, thoughts and (2) makes it possible for us to realise why different nations develop differently.</p>	<p>A. (1) Location of Phoenicia—Phoenician trade and commerce—trade route and important colonies—new countries discovered by them—articles of trade—their contribution in spread of civilization—new inventions.</p> <p>(2) Location of Judae and Israel—Early history of the Jews—their settlement in Egypt—Exodus—Moses' leading them to Palestine—Ten Commandments.</p>	<p>(1) To acquaint the students with the history of the Phoenicians and the Jews and encourage them to make a comparative study of the two neighbouring races, racially alike but completely different in outlook of life (critical judgment).</p> <p>(2) To enable the students realise the cause and effect relationship in history.</p> <p>(3) To arouse interest in the students to know more about distant people and civilizations and know human history more intimately.</p> <p>(4) To develop a cosmopolitan attitude in them.</p>

HISTORY INSTRUCTIONAL MATERIAL PROFORMA (Contd.)

Subject
History

Phoenicians and Jews
Unit

VI
Class

B. *Maps.*

1. Showing Phoenician trade routes and important colonies.
2. Showing location of Judae & Israel with the extent of Jewish kingdom marked.

(b) The Phoenicians were noted for their skill in (i) Agriculture, (ii) Navigation and (iii) Philosophical discourses.

2. Write true or false against the statements as the case might be ;
 - (a) Phoenicia was a very fertile country.
 - (b) The Jews believed in several gods with Jehova as their head.
 - (c) David taxed the people to their limit.
 - (d) The world is indebted to the Phoenicians for alphabet.
 - (e) Solomon built the temple of Jehovah.

C. *Pictures.*

1. Galley ships.
2. Some artifacts.
3. Moses leading the Jews to Palestine.
4. Arc of Covenant & Seven branched candle-stick.

3. Fill in the blanks :
 - (a) After....the Jewish kingdom was divided into two parts called....and....
 - (b) The....trade ship was called the....

D. *Chart of the Ten Commandments.*

4. Compare and contrast the Phoenicians with the Jews in as many points you can.

LIST OF PARTICIPANTS IN THE SUMMER VACATION COURSES 1967

ENGLISH—

Anima Basu	Garulia Balika Vidyalaya
Sandhya Chattopadhyay	Saradeswari Balika Vidya Mandir
Nilima Kurup	Sarat Chandra Pal Girls' School
Sephali Roy	Arya Kanya Maha Vidyalaya
Bandana Mukhopadhaya	Ichapur Girls H. S. School (Northland)
Milan Bose	Khantura Girls' H. S. School
Krishna Dutta	Chandravag Srikrishna Girls' H. S. School
Sneha Ghosh	" "
Anjali Ghosh	Sri Hanuman Balika Vidyalaya
Sheela Roy	" "
Chandana Chakravorty	" "
Susama Das	Arbelia Balika Vidyalaya
Roshan Advani	Loreto School (Bowbazar)
Prohabati Ghosh	Annada Sundari Hindu Balika Vidyapith
Moitreyee Mazumdar	Arbelia Balika Vidyalaya
Samita Ganguly	Ichapur Girls' H. S. School (Northland)
Uma Sanyal	Sanskriti Sangha Balika Vidyalaya
Ila Ghosh	Priyanath Balika Vidyalaya
Chinu Chatterjee	Deshabandhu Nagar Vidyamandir
Dipali Chattopadhaya	Batanagar M.P.H.S. Girls' School
Shyamali Lahiri	" "
Dipali Ghosh	Benoy Balika Vidyalaya
Santi Adhikary	Khanpur Girls' H. S. School
Krishna Dutta	" "
Nilima Nag	R. S. Girls' H.S.M.P. School

MATHEMATICS

Krishna Chakraborty	Benoy Balika Vidyalaya
Binapani Ganguly	Mokhada Sundari Balika Vidyamandir
Rina Sengupta	Prachya Bani Mandir Girls' H. S. School
Kajal Sengupta	Gokhale Memorial Girls' School
Jharna Guha	Narayani Sikshalaya
Chitra Guha	Arya Kanya Maha Vidyalaya
Sushma Dewan	Sri Hanuman Balika Vidyalaya
Aruna Halidar	Ichapur Girls' H. S. School
Manju Dewan	" "
Smriti Kana Ghosh	Saradeswari Balika Vidyamandir
Swapan Kumari Das	Kamala Balika Vidyapith

HISTORY

Madhabi Chatterjee
 Bakul Chowdhury
 Dolly Chakraborty
 Rekha Sarkar
 Rekha Sanyal
 Shefali Banerjee
 Namita Sarkar
 Minati Bhattacharya
 Kalyani Chatterjee
 Mira Chowdhury
 Amita Mazumdar
 Sadhana Kar

Indian Girls High School
 Ghateswar Balika Vidyalaya
 South Bishnupur Girls' Jr. High School
 Arbela Balika Vidyalaya
 Charigram Sri R.K.A.A. Balika Vidyalaya
 Benoy Balika Vidyalaya
 R. S. Girls' H.S.M.P. School (Tamluk)
 Kamala Balika Vidyapith
 ” ”
 Khantura Girls' H. S. School
 Arya Kanya Maha Vidyalaya
 Ichapur Girls' H. S. School

GEOGRAPHY

Bharati Sarkar
 Reba Mukherjee
 Santosh Mehrotra
 Usha Roy
 Chitra Barman
 Reba Roy
 Bandana Chakraborty
 Daya Shankar Upadhyay

Deshbandhu Sishu Sikshalaya
 Prachya Bani Mandir Girls' High School
 Aryakanya Mahavidyalaya
 Khardaha Priyanath Balika Vidyalaya
 Batanagar M.P.H.S. Girls' School
 Saradeswari Balika Vidyamandir
 Khardah Priyanath Balika Vidyalaya
 Sir Hanuman Balika Vidyalaya

“Teachers should be ideal comrades of those whom they teach, and through the course of teaching, should be stirred in sympathy with the stirring of the youthful minds.

Rabindranath Tagore

PUJA VACATION WORKSHOP ON THE DEVELOPMENT OF INSTRUCTIONAL MATERIAL IN HISTORY

A Workshop on the preparation of Instructional Materials "Rise of Japan as a World Power" in History was organised by the Department of Extension Services, Institute of Education for Women, for the teachers of Secondary Girls' School, Calcutta, from the October 23rd to October 31st, 1967. It was attended by a batch of 17 enterprising teachers from 14 forward-looking schools. The participants with the help of expert guidance formulated major instructional objectives in respect of the subject unit. They developed content and discussed new techniques of teaching in accordance with the guide-lines. The teachers also worked whole-heartedly in organising an exhibition of visual materials including maps, charts, diagrams, time-line, pictures etc. The active interest shown by the Consulate of Japan, Calcutta in this connection proved really stimulating. The teacher participants enjoyed their work thoroughly as it enriched their knowledge and widened their experience.

[A. RAY]

REPORT OF THE TRAINING COURSE IN HISTORY

Being invited by the Department of Extension Services some teachers of different schools of Calcutta and other districts assembled at the Hastings House, Alipore on the 23rd October 1967 at 10-30 a.m. for receiving a short course training in history. Most thankfully we acknowledge the opportunity extended to us by the Authorities and convey our indebtedness to them for making a well-knit arrangement of such a course, so useful.

In a new atmosphere and amongst a number of unknown faces, we experienced a sense of uneasiness at first, but the kind and sympathetic attitude of our Professors and befriending behaviour of others, enabled us to turn into a homogeneous group.

On the day of commencement of the course the Principal and Hony. Director of the Institute Sm. Nalini Das addressed us and delivered a thought provoking and valuable lecture giving stress on the duties and responsibilities of the teacher on whom the entire structure of education and its principles depend. Prof. Aparajita Ray, Co-ordinator of Extension Services Department in her address explained the object of the course, viz.—Development of Instructional Material in History. She said that History should get priority in the curriculum, but stereotyped teaching is making the subject dry and unpopular and does not evoke interest in the students. It is the teacher of history, who by the application of her methods, aids and appliances can make the subject interesting all the more. Her wise counsel set us thinking over the question of teaching history from a different angle. We are grateful to her. She chalked out our programme and asked us to form groups so as to carry it through. The seventeen

participants attending the course formed three groups under the supervision of three Professors Mrs. C. Bhattacharya, Mr. J. P. Banerjee and Mrs. N. Dey. Sri J. P. Banerjee first of all, addressed all the groups together and gave a comprehensive picture of Japan. Then the activities of our course began. We cannot but express here our indebtedness to Prof. J. P. Banerjee for his guidance and wise counsel.

The work proceeded according to the following manner. We were asked to find out the objectives of teaching the subject "the Rise of Japan as World Power" and submit a report on the objectives, aids and appliances and chief events for the time-line etc. on the next day. The present age is the age of internationalism with dependence and one worldness. The teaching of history helps developing this attitude among the pupils. Japan's history in the perspective of the common achievement of mankind will aid the cause of peace. We prepared our objectives on this major point of view. All of us discussed the objectives, each member contributing to the total output.

In the morning of 24th October we came with the required group reports which were then compiled into one comprehensive report on objectives. Our professors threw hints upon the concept. Concept is the basis on which the content matter is organised. A clear cut list of concepts should thus be prepared by a teacher before imparting lesson in the class and it should be a close associate of the objectives. During the second half of the day Miss A. Ray, Co-ordinator informed us that Sri K. Chatterjee, Evaluation officer of the Bureau of Psychology, David Hare Training College had agreed to enlighten us on evaluation. He said—evaluation is an important method in assessing the attainments of the pupil with regard to his idea about the subject. The defective system of evaluation stands in the way. The system should be replaced by the new questioning. Questions should be clear, thought-provoking, scientific and intelligent. At the time of setting questions teacher should set some model questions leading to comprehension test. It is a "must" for all. Some assignments were set for each group. Meantime, we read out the objectives evolved by each group and submitted them for comparison and compilation as said earlier. Here ended the day. Our home work was to prepare a report on the concept of the lesson and to set one hundred fifty model questions.

On the 25th October we submitted the required report and a lively discussion on the fullness and exactness of the content followed. A teacher should have a thorough idea about the content of the subject because the lesson needs elaboration. In course of imparting lesson in the class and teacher should try to make the content interesting and necessary references should be stated from other countries to make the lesson attractive and comparative. In the second half we were engaged to prepare the aids and appliances. For the vividness and clear idea of the lesson maps, charts, pictures, etc., should be used by the teacher. All these are important and stimulant materials and students get new interest to go in for the subject matter.

On the 26th October we submitted our required home task and the whole content was divided into units. During the second half we prepared aids, and

appliances—maps, charts, time line with chief events. On 27th October three group leaders consulted the content submitted by three groups and prepared an organisation on the units of the content. The whole content was divided into 15 units. Others continued their work with aids and evaluation materials. In the 2nd half of the day Evaluation officer Sri K. Chatterjee came and discussed the model questions submitted by three groups. From his discussion we came to know that questions should cover all the units of the content. Questions should be specific. It should avoid all kinds of vagueness. This day we left the institution with heavy assignment to make the questions more thoughtful and specific.

On 28th October the three group leaders submitted their reports on work done so far and thereafter a consolidated report was prepared. A blue print of model questions was submitted by us. During the second half a lovely film show on different aspects of Japanese life was shown. We appreciated the show very much and extended our thanks to the authorities for this attractive performance. Six different short films were shown. These depicted Japanese Architecture, Living Arts, Doll, Kimono, Kabuki and the Imperial Family.

On 30th October we prepared aids and appliances and finalised them for display in an exhibition to be held on 31st October. We also prepared a miniature of each aid. In the 2nd half of the day we paid a visit to the Consulate of Japan, Calcutta.

NEELA DEY

ORGANISATION OF CONTENT UNITS

Teaching unit "Rise of Japan as a World Power"

Part I—Mid-19th Century to 1st Great War.

Section "A" : *Commodore Perry's expedition to Sino-Japanese War (1853-1894).*

- Units—(1) Socio-political life during Tokugowa Shogunate; Seclusion—its internal and external effects.
- (2) The opening up : Circumstances leading to the end of seclusion ; Perry's expedition and unequal Treaties.
- (3) Political effect of the end of isolation—the Restoration ; Abolition of Feudalism—its economic and social effects.
- (4) Political reorganisation :—
Internal : The constitution of 1889.
External : Revision of Unequal Treaties.
- (5) Foreign policy : Sino-Jap relation upto 1894 (with special reference to Korea).

Section "B"—*Sino-Jap war to Anglo-Jap Alliance (1894-1902)*

- Units—(1) Effects of the Sino-Jap war : Japan's gains and the three power-intervention.

- (2) Sino-Jap and Russo-Jap relation, 1895-1902
- (3) Beginning of American intervention ; the Boxer and Open door ; Japanese attitude.
- (4) Anglo-Japanese alliance ; its far-reaching effects.

Section "C"—*Anglo-Jap Treaty to 1st World War.*

- Units—(1) Russo-Japanese war : its causes and effects.
- (2) Responsibility of the Anglo-Jap alliance for the Russo-Jap war : Comparative importance of Sino-Jap war and Russo-Jap war.
 - (3) Russo-Jap and Jap-U.S. relation, 1905-1914.
 - (4) Japan's entry into 1st World—"Guardian" of allied interest in the Far East—occupation of German Colonies—21 demands upon China.

Over view :—

Secondary education aims at the development of educand's total personality by proper nourishment of rational understanding, emotional balance, aesthetic appreciation of human values and achievements, psycho-motor skills, attitudes, interests, constructive imagination, and socio-personal adjustment. The period of life covered by secondary education is the most fertile period for critical and constructive insight into social, political, economic and religious processes and institutions of one's own people and others. Provided with effective instruction, the educand may grow up as an economically productive and socially efficient citizen of the current times. Instructional material should be designed with this end in view. History, as a subject of study is eminently suited to this purpose.

A study of the major processes and developments in World history is, therefore, a vital necessity. The present state of civilisation has established the concept of "world human society". Belongingness to human family through an understanding of human heritage may, therefore, contribute to personality development by dispelling ignorance and by developing positive attitudes to and insight into human affairs.

In this "would—perspective," the history of Japan's rise as a modern power is of particular importance for it throws light upon (a) international relations as well as economic and political cross-currents in modern times, (b) Japan's important role in the sum total of human activities, in the process of her rise, (c) the impact of this rise upon Asia as a whole, and India in particular and (d) the lessons drawable from Japan's history for application in new situations.

Scope :—

The whole fabric of the evolution-process of Japan in modern times constitutes the scope of study. The scope, therefore, particularly includes (1)

strategic and climatic importance of Japan's geographical location, (2) Topographical specialities and natural resources. (3) The pre-modern state of Japan's feudal economy and its concomitant socio-political system, customs, beliefs and institutions, (4) The process of evolution towards commercialism, industrialism and urbanism, as well as the internal and external factors involved therein, (5) The socio-political institutions and values of modern Japan, (6) Japan's relation with her neighbours and other peoples, (7) Her contributions towards the progress of human civilisation, and (8) Her limitations and failures.

Objectives Major :—

(1) To foster the cause of world peace by developing international understanding, a spirit of interdependence of peoples and nations, and the concept of "one-world."

(2) To develop an appreciation of and a positive attitude towards other people—their religion, society, culture, institutions and ways of life.

(3) To develop an appreciation of the contributions of Japan to the sum total of human culture.

(4) To develop a scientific attitude by the acquisition of rational and integrated knowledge of historical facts, concepts, terms, chronology and the role of personalities involved in the making of modern Japan.

(5) To develop an understanding of the causal connections and motivations behind Japan's isolation and subsequent modernisation, abolition of feudalism, democratisation etc. so that the pupil may draw inspiration therefrom, find interest in happenings and institutions, and understand, by comparison, similar processes elsewhere, particularly India.

(6) To develop an understanding of the impact of Japan's rise upon world civilization, cultural heritage and political processes, with particular reference to impact upon colonial Asia.

(7) To develop, in particular, an understanding of the impact of Japan's rise upon Indian national movement.

(8) To develop an insight into the psychology behind Japan's political aspirations, and also the contribution of her geographical, social and economic conditions towards her expansionism, so that irrational judgments may be guarded against.

(9) To help the pupil apply this knowledge of Japanese history, specially in respect of her economic, cultural and technological development for proper appreciation of India in her process of development, by way of comparison, contrast and citation of parallels, while guarding against the limitations apparent in the case of Japan.

(10) And thus to help the pupil grow up as an effective citizen possessing a robust sense of values.

Subsidiary Objectives :—

(i) To develop an understanding of the beautiful land and hospitable people of Japan.

- (ii) To develop historical concepts and perspectives.
- (iii) To develop constructive imagination from an engrossing tale of a nice people in their thought and action.
- (iv) To develop interest in collateral and further reading.
- (v) To develop skills in :—
 - (a) Locating and using original sources.
 - (b) Map preparation and map reading.
 - (c) Preparation of charts, diagrams, pictures, time-lines, time-graphs, etc.
 - (d) Using other aids.
 - (e) Other activities, viz., Japanese puppet show, model making, dress making, flower decoration, exhibition, calling on Japanese cultural attache, making pen friends with Japanese children, etc.
 - (f) Reference work.

Concepts on the basis of which the Instructional Process will develop

1. Japan — the land and people :—Japan is a group of Pacific Islands strategically situated near Korea, China and Eastern Siberia, with natural peculiarities and inhabited by interesting people.

Sub-concepts :

- (a) Geographical location and dimensions.
 - (b) Physical features, topographical peculiarities and natural resources.
 - (c) The people — racial stock, special habits, likings, food, dress, etc.
 - (d) Religion and faith — Confucianism, Shintoism, Buddhism, Christianity.
2. Socio-economic condition prior to modernisation : Before mid-19th century Japan was a feudal land with concomitant socio-economic systems.

Sub-concepts :

- (a) Economic — Feudal agrarian economy with rice as medium of exchange.
 - (b) Feudal social structure with aristocratic privileges; artisans and merchants in coastal towns.
 - (c) Gradual growth of Imperial power.
3. Political condition prior to modernisation : for 300 years before 1867, the Japanese Emperor was a figure-head, the actual ruler being the Shogun.

Sub-Concepts :

- (a) Prolonged feudal strife terminating in the suppression of Tozama chiefs—Three hundred years of "Great peace."
 - (b) Emperor—a figure-head : land was ruled by Daimyos and Samurai—hereditary civil and military bureaucracy.
4. Significance of Tokugawa Shogunate : The Tokugawa Shogunate maintained a policy of seclusion, but unconsciously contributed to internal fermentation.

Sub-concepts :

- (a) The growth of Edo.
 - (b) Growth of internal trade and commerce—rise of new classes.
 - (c) The Closure Edicts.
 - (d) Conflict between local and central Lords—Japan prepares for modernisation.
5. Perry's Expedition: Opening up of Japan—the Unequal Treaties: Commodore Perry's expedition helped this process and opened up Japan to the Western World.
 6. Meiji Restoration — downfall of old era : Beginning of Meiji Era : The external impact caused rapid internal change by inaugurating Meiji Restoration and Reforms.

Sub-concepts :

- (a) Revolutionary transformation in economic, social, cultural and political institutions.
 - (b) No sharp break with past—old interest adopted to a new pattern.
 - (c) The constitution of 1889 — compromise.
7. Japan becomes a power of importance : Japan's history is not very old, but in recent times it was a history of rapid growth to power and importance.

Sub-concepts :

- (a) Rapid growth of commerce and industry.
 - (b) Desire to expand shoulders — eyes turned to Asian mainland.
 - (c) Sino-Japanese war, 1894-95.
8. Japan becomes a world power : By the beginning of the current century Japan attained the status of a World Power.

Sub-concepts :

- (a) Aggressiveness in foreign relations.
 - (b) Russo-Japanese war, 1904-05.
 - (c) Tremendous impact of Japan's victory upon colonial Asia specially Indian National movement.
9. Japan — an equal with Western Powers : Enters 1st World War : Japan utilised the 1st World War to assert her claims to territorial and economic expansion.

Sub-concepts :

- (a) Declaration of War.
- (b) Occupation of German colonies in the Far East.
- (c) 21 demands upon China.

ELABORATION OF CONTENT UNITS.

Section A—Japan prior to the advent of Commodore Perry.

Unit 1 :—(a) Japan—the land and the people.

Group of islands in the Pacific Ocean to the North-East of China. Length—2400 Kilometers or 1500 miles. Total Dimension of the whole area—142,726.5 Sq. miles or 369662 Sq. Kilometers. Beautiful country with certain peculiarities—(Mountainous regions, volcanoes, Typhoon etc.)—completely isolated from the mainland of Asia—Insufficient natural resources.

(b) People of diverse origin but of distinct type, patriotic in spirit.

(c) Religion and faith—Shintoism, Buddhism, Confucianism, Christianity.

Unit 2 :—Socio-Political life during Tokugawa Shogunate :—

(a) Dominance of Feudalism—Mikado as figure-head. Powerful Shogun from 1192-1867.

(b) Tokugawa Shogunate rule from 1603-1867—1st Shogun-Ieyasu.

(c) Social life—Privileged class—Feudal Lords, Agrarian Masses—the worst sufferers, development of art and culture, rice economy, existence of internal trade,—No external trade.

(d) Religion—Shintoism and Buddhism.

(e) Political—Peace prevailed—Unprecedented National Unity under Tokugawa Shogunate—decline of military potential.

(f) Seclusion—Policy of seclusion due to internal and external cause—Japan lagged behind in the march of world progress.

Section B—Commodore Perry's Expedition to Sino-Jap war.

Unit :—(1) The opening up :—Circumstances leading to the end of seclusion. Perry's expedition and Unequal Treaties.

Causes of opening up of Japan—Intellectual revival, growth of merchant class,—dissatisfied Samurai, jealous western Daimyos, devotion to Mikado—revival of Shintoism, the field was internally prepared. Advent of Commodore Perry—1853—Unequal Treaties with America—Kanagawa treaty (1854), Harris Treaty (1858), and treaties with U.K., Russia, Holland—End of Isolation.

Unit :—(2) Political effect of the end of isolation. The restoration—abolition of feudalism—its economic and social effects.

(a) Meiji Restoration (1867)—the events involved, abolition of feudalism, (1869) the process involved—restoration of Mikado to full power.

(b) Social and economic effects.

Introduction of Modern western education—emphasis upon the value of public opinion—rapid progress in every aspect of life (economics, overseas transportation, development of modern industry, art and culture).

Unit 3 :—Political reorganisation :

(a) Internal—Growth of Political consciousness, formation of bi-cameral legislature (1881), establishment of new constitution with limited suffrage (1889).

(b) External :—Revision of Unequal treaties : interest in China, Korea and Russia—Gradual success from late 19th century.

Unit 4 :—The foreign policy :—Aggressive Militarism—Sino-Japanese war 1894,—conflict of interests between China and Japan over Korea—interest in expanding trade in the Far East—Defeat of China—Treaty of Shimonoseki (1895) Beginning of Japan's interest in Manchuria.

Section C—Sino-Japanese War to Anglo-Jap Alliance (1894-1902)

Unit 1 :—Effects of Sino-Jap War :—

(a) Japan's gain—Port Arthur, Liao-Tung Peninsula, the island of Formosa, the Pescadores island, a large war indemnity.

(b) Korea became independent.

(c) Three-power intervention—Russia, France and Germany 1895, Japan was deprived of a part of her gains (e.g. Port Arthur, Liao-Tung peninsula) Japan's suspicion of Western powers.

Unit 2 :—(a) Sino-Jap and Russo-Jap relation 1895-1902. Deterioration of China's position due to Sino-Jap war—Scramble for concessions, Boxer revolution in China and intervention of Japan and other western powers.

(b) Russo-Jap Relation—seed of conflict lay in Three-power intervention. Japan's endeavour to check Russia's incursion into Manchuria and probably in Korea.

Unit 3 :—Beginning of American intervention—China's humiliation and America's first intervention in Far Eastern Countries—U.S.A. proposes open door in China. Japan took this opportunity—Extension of commercial free trade—idea of political hegemony originated.

Unit 4 :—Anglo-Jap Alliance—Japan got a friend to enhance her power and prestige (1902)—recognized as a first rate power in the Far East.

Section D—

Unit 1 :—Anglo-Japanese Treaty to World War I.

Russo-Jap war—causes. Russian advance into Manchuria—Japan afraid of her own interest—war broke out in 1904-1905.

Effects :—Defeat of Russia, Treaty of Portsmouth 1905—Rising power of Japan. Russia abandoned Manchuria—beginning of Imperialism—Japan's place in international politics changed—Japan's victory created a new spirit in colonial Asia and specially in Indian National Movement—Japan's confusion about U.S.A.

Unit 2 :—(a) Confidence of Japan created by Anglo-Jap Alliance—Japan was

brave enough to declare war against Russia—Sino-Japanese war—an element of self-defence—Russo-Japanese war—an element of aggression.

(b) (i) Japan the most powerful nation in the East—Not humiliated like China by Western powers.

(ii) Japan's position as world power—beginning of imperialism.

Unit 3 :—Russo-Jap and Jap-U.S.A. relation 1905-1914.

(a) Spirit of amity prevailed because of Russia's set back in Manchuria; furtherance of this situation by Anglo-Russian convention 1907.

(b) Jap-U.S. relation—deterioration because of U.S. immigration laws of 1911.

Unit 4 :—Japan's entry in 1st world war:—Outbreak of 1st world war 1914. Japan sided with the allies, occupied German colonies in China—21 demands of China—China's policy began to crystallise.

Special attention to be paid to the presentation of the following names of persons, places, events and the terms of importance in Japanese history in proper sequence and perspective for integrated understanding of their significance.

A. Places of Historical Importance

1. Hondo (2) Yezo (3) Shikoku (4) Deishima (5) Nagasaki (6) Korea (7) Shimonoseki (8) Port Arthur (9) Pescadoris (10) Formosa (11) Liaotung (12) Portsmouth (13) Osaka (14) Edo (15) Yokohama (16) Manchuria (17) Yamatai (18) Seoul (19) Kamakura (20) Kyushu (21) Matsumae (22) Hokkaido (23) Shimoda (24) Hokodate (25) Kyoto.

B. (Persons)

(1) Commodore Perry (2) Theodore Roosevelt (3) Ieyasu (4) Ii Noiosuke (5) Itagakitaisuke (6) Taish (7) Mitshuhito (8) Sir Thomas Wade (9) Count Ito (10) Mistrukuni (11) Keiki (12) Hedeyeshi (13) Yoshimura (14) W. Harris (15) Macartney.

C. A few Japanese Words

(1) Nippon (the land of the Rising Sun) (2) Jimmu Tienno (chief war-spirit, King of Heaven) (3) Samurai (Military class) (4) Daimyos (great name) (5) Shogun (barbarian Killing Generalissimo) (6) Mikado (the king) (7) Taika-ne Kaishin (Great Reformation) (8) Humin (Common People) (9) Satshu (10) Sankin-Ketai system (11) Kuge (class of nobles) (12) Fudai (13) Tozama (14) Bakufu (15) Taire (16) Kare (17) Closure Edicts (18) Kanagawa Treaty (19) Treaty of Edo (20) Meiji (21) Banzai—Victory to Japan.

REPORT ON THE PREPARATION OF EVALUATION TOOLS IN THE HISTORY WORKSHOP

On the third day of the workshop, Sri Kamal Kumar Chatterjee, Evaluation Officer, Bureau of Educational and Psychological Research, Calcutta, discussed with the participants the concept and techniques of evaluation and also the instructional objectives in History.

Sri Chatterjee drew a distinction between examination and evaluation. While examination is narrow and restricted in scope, evaluation is broadbased and comprehensive in nature. Evaluation is a process of effecting desirable changes in pupil's behaviour, as a result of education at the cognitive level, at the affective level and also at the psychomotor level. The direction of this change is determined by the objectives of teaching. This calls for a clear understanding of instructional objectives both for the purpose of providing worthwhile learning activities and for testing. Evaluation implies objective based instruction and continued assessment of the progress of the pupil, leading to the improvement of instruction and learning which in turn contributes to the total growth of the child.

Sri Chatterjee observed that in any comprehensive programme of examination reform improvement in the quality of a question paper is a foregone conclusion. Individual questions would, therefore, have to be framed in such a way that when put together in the form of a question paper they fulfil all the requisites of a good measuring instrument. We may make use of essay type, short-answer type or objective type questions or all of them together but they should all conform to the characteristics of a good question. Sri Chatterjee, then, went on to discuss the characteristics of a good question.

1. Objective

A good question should be framed on a predetermined objective and it should test it effectively. The essay-type question may sometimes test more than one objective. Care has to be taken that a question tests the same ability which it is designed to test and not some other ability.

2. Content

The content of a question is closely related to the objective being tested. The framer of the question has, therefore, to take into account the topic and the sub-topic he is going to test. He should see that the question samples exactly the same area of content which he wants to test.

3. Form of question

Essay type, short answer type and objective type questions are the main forms in use. In a question the form depends considerably on the kind of ability as well as the content to be tested. Some forms are more amenable than others in testing certain abilities. Essay type questions are more suited to test abilities like organisation of thoughts, interpreting, commenting, etc. Therefore, a judicious use of appropriate form of question will have to be made while setting questions.

4. Language

To bring objectivity in evaluation there is need for using clear, precise and unambiguous language while framing questions.

5. Delimited scope of the answer

The item-writer should see that while framing a question he gives some thought to the expected answer. He may prefer to even write the answer. This would sometimes reveal the weaknesses in the question itself.

Sri Chatterjee, then, pointed out the need for planning and editing a question paper. The general plan of a question paper may be called the design of the paper consisting of weightages to objectives, contents and forms of questions with some other minor details. The paper setter must see to it that at least all the objectives testable through written examination get their due share. The paper-setter has to take a decision about the weightages to be given to different units of the subject, depending upon their importance and the time spent on them in the class. The paper setter must decide the weightages to be given to different forms of questions. This will depend on the suitability of each form of questions to the testing of a particular objective and the content area.

Reviewing the instructional objectives already formulated by the participants, Sri Chatterjee emphasised the need for preparation of short answer and objective types of questions on the following four instructional objectives, viz.,

- (1) The pupil acquires knowledge of facts, terms, concepts, events, chronology, trends, personalities, policies, sources of history, etc.
- (2) The pupil develops understanding of facts, terms, concepts, events sense of chronology, trends, personalities, policies and sources of history, etc.
- (3) The pupil develops the ability to apply the acquired knowledge in new and/or unfamiliar situations.
- (4) The pupil develops skills related to the study of History.

Preparation of Evaluation Tools

At the end of the discussion it was decided that each participant would construct different types of items on a particular unit and all the items would be discussed in the next general session. The Evaluation Officer would guide the discussion and help the participants in selecting good items on the subject.

According to the programme the participants constructed different types of items on the subject and all the items were discussed in a general session. Sri K. K. Chatterjee, Evaluation Officer, helped the participants in selecting good items.

The items prepared by the participants will be processed and edited by the Evaluation Unit attached to the Bureau of Educational and Psychological Research, Calcutta. The final edited form of the items will be published by the Department of Extension Services, Institute of Education for Women, Calcutta.

The Unit-wise and form-wise analysis of the items prepared by the participants are given below :

Content		Number of items			Total
		Essay	Short Answer	Objective Type	
Introduction		2	1	2	5
Unit	1	3	2	3	8
"	2	4	1	4	9
"	3	4	2	4	10
"	4	2	2	2	6
"	5	2	2	1	5
"	6	3	2	1	6
"	7	2	1	2	5
"	8	1	1	1	3
"	9	3	1	x	4
"	10	5	2	3	10
"	11	3	2	2	7
"	12	2	1	2	5
"	13	2	1	2	5
		38	21	29	88

Excerpts from the speech given by Mr. S. Shigihara, Consul for Japan, in connection with the Puja Vacation Training Course in History.

As you are well aware, Indo-Japanese relations date back to very early times. Through the spiritual bond of Buddhism, Japanese life and thought was profoundly influenced. However, the real contact between the two nations came to the fore only after the Meiji Restoration in 1868 which opened a new era of modern Japan, putting an end to the 230 years' old policy of seclusion. **** As a result of the Second World War, the territories of Japan shrank to 45% of her pre-war size and 44% of her productive facilities were destroyed. A major portion of the country was deduced to shambles. Devastation and despair stared at the people of Japan. At this time of Japan's distress it is heartening to recall the ungrudging sympathy and encouraging support which India gave to Japan which remains ever memorable in the minds of our countrymen.

We assure you, that it will always be our pleasant duty to vigorously strive to help to overcome many of the difficulties which beset the Indian people today and bring about a balanced economic progress and social development of India. In conclusion, I would like to offer my best wishes to the Extension Service Department, Institute of Education for Women and trust that through such seminars they would work for the furtherance of fraternity and understanding between the countries of the world.

LIST OF AIDS PREPARED

- (1) Map—The relation of Japan with the mainland of Asia.
- (2) Buddhist Temple.
- (3) A gate of a Shinto Shrine, Image of Buddha.
- (4) The picture of Japanese pottery.
- (5) Time-line.
- (6) Transportation in old Japan : Junk, Railway.
- (7) Transportation in old Japan : Kago, Jinrikisha.
- (8) Map of Japan.
- (9) The dress of the Japanese :—Samurai, the old Japanese dress, a typical Kimono.
- (10) Hair Style of the Japanese
- (11) Some scripts of Japan.
- (12) Important cities of Japan.
- (13) Different types of Kimono.

Japanese Documentary Film Show

- | | | |
|-----------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Title of the Films shown | — | <ol style="list-style-type: none"> 1. The Architecture of Japan. 2. Living Arts of Japan. 3. Japanese Doll. 4. Kimono. 5. The Imperial family. 6. Kabuki. |
| 2. Address of the Organiser | — | Sm. A. Ray, Co-ordinator, spoke briefly on the cultural value and educational significance of the films. |
| 3. Date and time of the Film show | — | Saturday the 28th October, from 1-30 to 4 p.m. |
| 4. Venue | — | Institute of Education for Women—Hall. |
| 5. Number of Spectators | — | 30. |
| 6. Reaction of the film-show | — | <ol style="list-style-type: none"> 1. The continuity of traditional structural designs inspite of the use of modern materials was really enlightening. 2. Japanese love of graphics, floral arts and brilliant colour combination was interesting. 3. The art of doll-making with very simple material was worthy of emulation. |

4. The kimono throws light upon the value of Tradition in a modern life.
 5. The intellectual and human interest of the Imperial family immediately attract attention.
 6. Kabuki was interesting in particular respect of dresses, make up, gestures and sound effect.
7. Suggestions :
- Exhibition of Japanese arts, actual display of doll-making and visit of Kabuki Troupes are most interesting and instructive. Introductory literature will be much appreciated. Similar shows in our educational institutions are most desired.

The Show on the whole was enlightening, stimulating and encouragnig.

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Political and Economic Problems of the Meiji period.
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6. Charles Macfarlane — Japan.
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11. W. G. East and D. H. K. Spate — The Changing Map of Asia.
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14. Atshman Sakai — Japan in a nutshell.
15. Edward Narbeck — Changnig Japan.
16. David H. James — Rise and Fall of the Japanese Empire.
17. E. W. Clement — A Short History of Japan.

LIST OF PARTICIPANTS IN PUJA VACATION TRAINING COURSE

Name	School
1. Malabika Mitra	Sister Nivedita Girls' School
2. Bilu Sengupta	Entally Hindu Balika Vidyamandir
3. Sandhya Samaddar	Victoria Girls' High School
4. Gita Chakraborty	Habra Girls' High School (Multipurpose)
5. Archana Roy	Brahmo Balika Sikshalaya
6. Sephali Sarkar	Khanpur Girls' H. S. School
7. Bandana Mukherjee	Jodhpur Park Girls' School
8. Jayanti Bhattacharya	South Bishnupur Junior High School
9. Sandhya Chatterjee	Khantura Girls' Higher Secondary School
10. Bela Roy	Lake View Girls' Higher Secondary School
11. Helena Chatterjee	Do.
12. Chitra Kundu	Kamala Chatterji School for Girls
13. Sudha Ukil	Do.
14. Sadhana Karmakar	Indian Girls' High School
15. Madhabi Chatterjee	Do.
16. Sandhya Ghosh	Mugkalyan Girls' High School

“The latest gospel in this world is : know thy work and do it. All pure work is sacred; in all pure work, were it but true hard labour, there is something divine.”

Thomas Carlyle

NEW TREND IN SCHOOL PRACTICES

STUDENTS' PARLIAMENT

IDENTIFYING DATA OF THE SCHOOL

1. Name of the School

Baghbazar Multipurpose Girls' School
(Govt. Sponsored),
65-A, Baghbazar Street,
Calcutta-3.

2. It is a recognised School
situated in urban area.

3. No. of Pupils

301 (Three hundred and one only)

4. No. of Teachers

23 (Twenty three only)

5. Year of establishment

1965

In order to give the students some responsibility in maintaining discipline and inculcate self-government, a scheme called "Students' Parliament" is introduced with the following objectives in view :—

OBJECTIVES

1. To foster self-discipline among the students.
2. To train the students for the democratic set-up of the society.
3. To train the students in good citizenship.

PLAN

All the important features of a Parliament are present in the Students' "Little Parliament." The school as a whole is considered as a Country and the classes as States and every student is a Citizen in this Country i.e. the School.

Two elections are held in the very early part of the year. Each class can elect members of the Parliament by Secret Ballot. The other election is concerned with the choice of the Prime Minister i.e. the Leader of the Parliament. From among the elected members of the Parliament those who represent the class can contest for Prime Ministership. Every citizen of the Republic is eligible to cast vote for the election of the Prime Minister. The candidate who obtains the highest vote is elected Prime Minister and who gets the next highest vote is the Home Minister.

The P.M. now selects her colleagues and forms the Cabinet. The members who are not appointed as ministers are absorbed as Deputy Ministers and Parliamentary Secretaries under different Ministries so that every elected members have some scope to contribute to the school-management.

The Ministers have different portfolios viz the Home, Information Culture and Decoration, Gardening, etc. The Prime Minister is in over-all charge of the

- (b) To develop the inborn individual abilities like dramatics, music, etc., of the students by providing opportunities to exhibit their talents.
- (c) To develop the spirit of co-operation, fellow feeling, sympathy, etc., of the pupils
- (d) To widen the scope of entertainment for the students.
- (e) To develop the power of organisation.

PLAN

"Literary and Dramatic Club" was initiated in 1960 under the guidance of the teachers of this school. The week-end meeting of the Club members encourage the students to express their talents. They take part in the variety cultural programme regularly and show their efficiencies in music, drama, recitation, etc. They select current topics for debates and express their opinions freely. They prepare the necessary dresses and equipments for the dramas. Usually they themselves direct the programmes. Every year prizes are awarded to the talented students for their performances.

Generally three periods are allotted for the week-end meeting. The leaders of the separate groups such as —Junior, Senior, etc., prepare the scheme of work.

The participants then come forward and play their parts. The students present in the auditorium evaluate the activities and give remarks. They also encourage the less talented players. At last the President elected by the Club members addresses and gives necessary suggestions. Before the assembly is dispersed, the programme for the next meeting is chalked out by the leaders and preparation goes on in the off periods throughout the week. Guidance, if necessary, is given by the teachers in charge of the club.

EVALUATION OF THE PRACTICE

1. It has given necessary scope for the improvement of the talent qualities of the individual students.
2. It has encouraged the pupils to come forward and show their parts.
3. It has aroused a spirit of healthy competition among the pupils.
4. It has enriched the cultural activities of the school and has helped in bridging the gulf between the curricular and co-curricular activities.
5. It has inculcated the spirit of discipline among the students.

R. CHAKRABORTY

Headmistress, Jodhpur Park
Girls' Higher Secondary School

Cabinet. Next to the Prime Minister is the Home Minister who has to look to the discipline of the school. The Minister of Information collects information and communicates with different other schools which helps to foster good relationship with other Institutions. The Minister of Culture and Decoration arranges programmes, etc., of the festivals. The Ministry for Gardening looks after the school garden. There are also other departments in the Parliament.

There are Advisers to different Ministries from the Staff members who are chosen by the Ministers themselves.

The Head Mistress is the ex-officio President of the School Republic.

EVALUATION OF THE PRACTICE

1. It led to the improvement in the discipline in the School.
2. It helped the students to be conscious about the duties and responsibilities of the citizens of a democratic country.
3. It infused in them a spirit to work in a team and developed esprit de corps.
4. It imparted training to the students in the parliamentary system of Government.

ANIMA MUKHERJEE

Head Mistress

Baghbazar M. Girls' School
Calcutta

LITERARY AND DRAMATIC CLUB

Identifying Data of the School

1. Name and address of the school — Jodhpur Park (Government Sponsored)
Girls Higher Secondary School,
Calcutta-31, West Bengal.
2. Year of establishment — 1960
3. This is a Government Sponsored School situated in an urban area.
4. Number of pupils — 497
5. Number of teachers — 28
6. Examination results

Year	Pass percentage of the school at Board's examinations
1963	100%
1964	100%
1965	100%
1966	100%

7. The practice called "Literary and Dramatic Club" was introduced in the year 1960. Since then it is being followed as a part of the school routine.

OBJECTIVES

The following are the objectives of this practice :

- (a) To improve the Socio-cultural life of the school students.

BALIKA SAMAJ

1. Name & address of the school—Shri Shikshayatan School,
11, Lord Sinha Road, Calcutta-16.
2. Year of establishment—1954.
3. Private, recognised school situated in urban area.
4. Number of pupils

(a) Primary	600
(b) Secondary	680
	1280
5. Number of teachers

(a) Primary	27	inclusive of the headmistress
(b) Secondary	40	,, ,, ,, Principal
	67	
6. School Final & Higher Secondary results since 1957—100%.
7. *Aim*:—To encourage all pupils to take part in co-curricular activities organised on a democratic basis either directly or indirectly.
8. *Plan*:—From its very inception, this school has organised its co-curricular activities through the Executive Committee of the Balika Samaj which is an organisation formed for this very purpose and which is comprised of all the pupils from Class V to XI. All members of the Balika Samaj pay an annual subscription of Rupees Three to meet the various expenditure incurred by the Committee in carrying out its different programmes and projects.
 The Balika Samaj Committee is an elected body, each class electing its representative to the body. The Committee elects its Secretary and assistant Secretary usually from Class X. The representatives of the higher classes choose the President of the Committee from amongst the staff-members. The President in turn receives help from other members of the staff when necessary. Thus the whole school body is involved with the Balika Samaj.
9. *Activities*:—The Balika Samaj usually meets once a month in the school auditorium, either in small groups or all the classes together depending on the activity or programme which is drawn up by the Committee itself e.g. if the programme for a particular month is a debate, the classes which take part are usually IX to XI, but class VIII attends it and is allowed to participate by speaking from the floor and by voting. If it is an entertainment, naturally all the classes attend and put up small items. As all the items cannot be shown, the Committee

and the President eliminate the ones which they consider not upto the mark. The entertainment provided is sometimes of a high order from which the Annual Days' programme may be selected. The Committee tries its level best to give each class at least one chance. Another favourite programme is 'Antakshari' in which the best girls from each class participate, and it is not unusual to find the younger ones scoring heavily.

Besides, literary, dramatic and other academic activities, the Balika Samaj undertakes to raise special funds when National calamities take place. This year they have raised over a thousand rupees for the distressed people of the drought affected areas and have presented the cheque to the Governor of West Bengal. Every year too, the Balika Samaj buys T.B. seals.

In order to encourage the literary, dramatic and other activities, small token prizes are given from the Balika Samaj fund.

10. *Evaluation* :—As a result of the various activities organised by the Balika Samaj, independent organising ability of the pupils is encouraged and nurtured under the guidance of staff members; the members learn how to discipline their own personal ambition for the good of the whole programme; how to work as a team and they also have the opportunity of meeting their staff-members outside the class-rooms but in such activities which though not pertaining to the syllabus proper form an essential part of school life itself. The staff and pupils become involved in activities which allow them to know each other better and to establish rapport which is carried over to the classroom and which is so very necessary for successful teaching.

LATIKA NAG,
Principal,
Shri Shikshayatan School,
11, Lord Sinha Road,
Calcutta-16.

"The reform needed is not that the school coach should be better horsed, but that the school coach should be turned right round and started on a new track."

Pestalozzi

EVALUATION SEMINAR

Evaluation Seminars were held on the completion of two Experimental Projects conducted by Sakhawat Memorial Government Girls' Higher Secondary School, Calcutta and Khantura Girls' Higher Secondary School, 24-Parganas, started during Session 1966-67. Educative exhibitions organised on this occasion and stimulating discussions by educationists helped in the proper assessment of the work in both the schools. Report on the projects are given below :

REPORT ON THE PROJECT "TEACHING OF BENGALI THROUGH CLUB ACTIVITIES"

UNDERTAKEN BY
THE KHANTURA GIRLS' HIGHER SECONDARY SCHOOL

1. Aim of the Project :—With a view to creating interest for Bengali literature and help developing literary acumen amongst the students, the project of "Teaching of Bengali" through club activities was implemented under the auspices of this Institution.

2. Execution of the programme :—A senior teacher of Bengali was entrusted with the charge who carried through the programme with the assistance of other members of the staff.

Students reading in classes V to IX took part in it. Major part of the project was carried through by the students themselves and the teachers occasionally gave them necessary guidance. The whole Programme was divided into six sittings and the report of the work done by the students by way of discussion has been placed in the file. To form a comprehensive idea about the chronological development of Bengali literature together with the works of the associated poets and litterateurs, students collected quotations, writings, pictures, assorted proverbs and messages during the period of continuance of the project. Each of the students prepared a file for preservation of the materials and collections of the project. They took part in debates and recitation held in this connection. Portraits of eminent Bengali litterateurs and depiction of some themes (from their text book) in colour were also prepared by them.

Charts and models conducive to the study of Bengali literature were also made, and for this purpose two periods a day were also allotted.

3. Evaluation :—In the process of execution of the project, it was found that the students appreciated the seriousness with which a mother tongue should be learnt and became absorbed in getting at the contents of the programme,

which we could not expect readily. The enthusiasm, interest, and spirit of self-reliance shown by the students prove that the aim of the project has been achieved largely. As a result, their performance in Bengali in class examination has appreciably improved. Besides, they have developed some aesthetic taste and creative disposition in them.

4. Evaluation Seminar :—To evaluate the works done by the students in the matter of the project, a seminar was held on 21st August, 1967. Hony. Director Sm. Nalini Das, Co-ordinator Sm. Aparajita Ray and Ex-Co-ordinator, Sm. Kalyani Karlekar of the Extension Services Department, Hastings House, Alipore, Calcutta-27 and a professor of Gobardanga B. T. College and some teachers of Bengali of local institutions attended the seminar as resourceful persons. A thorough and thought provoking discussion on the utility of the project was held. The gist of the discussion is that (i) Students should be asked to do more work independently. (ii) Reading habit may be increased through the activity programme. (iii) A well equipped library should be maintained in the school wherefrom the students may satisfy their thirst for knowledge. (iv) Students should be alerted about their errors by asking them to have recourse to writing down and reading out their literary activities in the literary club organised by them. All the resourceful persons appreciated the works of the students. The students organised an exhibition on the activities of the programme. The poster exhibition on the poem "Bharat Thirtha" by Rabindra Nath Tagore was very much appreciated. The idea of internationalism was beautifully depicted by the young learners. The exhibition showed the potentiality latent in the students.

The resourceful persons were of opinion that to make the idea of the programme a success, the continuity of the scheme should be maintained by the school, because this type of work enhances the power of thinking of the students. It may be pointed out here that with a view to developing the spirit of free thinking, a period for this purpose has been allotted in the weekly routine. This has evoked a keen interest and enthusiasm.

5. In fine, I express my thankfulness and gratitude to the N.C.E.R.T. and Extension Services Department of the Institute of Education for Women, Hastings House, Alipore, Calcutta-27 without whose kind assistance and advice the project could not have attained its height.

The degree of sincerity and devotion shown by the teachers and the students of this institution (in order to make the whole project a success) is quite admirable. I am thankful to them too.

S. CHATTERJEE,
Headmistress,
Khantura Girls' Higher Secondary School,
Khantura, 24-Parganas.

REPORT ON THE PROJECT "IMPROVEMENT OF THE TEACHING OF ENGLISH VOCABULARY"

UNDERTAKEN BY
SAKHAWAT MEMORIAL GIRLS' HIGHER SECONDARY SCHOOL

Teaching of Vocabulary

While teaching English, Paper I, Higher Secondary examination, I have found that because of poor vocabulary, students find 'the answering from' and 'making precis' of unseen passages, very difficult. Sometimes they miss the whole idea in a passage or do not understand a question because the meanings of a few key words are unknown to them. I intended to improve the vocabulary of my pupils.

Programme of action: I believe that the teaching of words out of context is not effective. Therefore I confined myself to teaching of only those words that we came across in our lessons. These I classified into three groups :

- (1) Words to be recognised only.
- (2) Words to be used (active vocabulary).
- (3) Words not very important.

(I used my discretion in making this classification.)

To these words I of course supplied synonyms and antonyms; one word for a phrase; and pointed out that :

(1) With slight modifications words may be transformed into different parts of speech, for example : exceed, excess, excessive, excessively.

(2) The use of prefixes and suffixes modify the word meanings.

I aimed to remove :

- (1) The confusion in meaning, and use of some words, for example :

respectable.....	showing respect
respectful.....	deserving respect
beside.....	by the side
besides.....	moreover

- (2) The carrying over into English composition the Bengali usage of some English words; for example :

'present' and 'presentation' are used differently in English but our students are prone to using them synonymously. Using 'going to foreign' instead of 'going abroad' is also a common mistake.

Plan of action: In January when the classes began, I told the students that we were going to learn words more carefully because the knowledge of words would help us in doing our 'unseens' in the first paper and also in expressing ourselves in the second paper. I told them that tests would be held. The girls took interest. They maintained a separate exercise book to take down the meanings of the words, their different parts of speech, and the suitable prepositions,

if any, used with them. I did the same. I also kept notes of my day to day experience in teaching the words.

I had three 45-minute and one 75-minute periods at my disposal. About 5-10 minutes, in the beginning of each period, were taken for the teaching, recapitulation of the words, and the correction of their wrong use.

The meanings of new words were elicited or given. To save time and to avoid errors, the meanings were written on roller black slates. Only the meanings in the context were taken into account so that the students may not be confused or overburdened.

At the end of the week ten most important active words were used for writing sentences for homework. Words most incorrectly used were repeated.

To give the students more practice in using the words, lists of the new words taught were given to the teachers, teaching second paper.

Every month a short test in vocabulary was held. The monthly tests together carried 50 marks and a longer test at the end of the term carried 50 marks. The marks out of this 100 marks were counted for position.

Evaluation : A number of different kinds of tests revealed that the students' ability to recognise words had doubtlessly increased. Their ability to use, which is much more difficult had also improved. The students did the 'unseens' in much less time than before because less time was required in explaining. They found more interest in reading library books, presumably owing to better comprehension. In their compositions they started using words hitherto unused by them.

Limitations : It is impossible to teach the different shades of meanings and the most appropriate use of the words in the manner described above. For that the students have to have as much contact with the language as possible and in the case of our students this is reading a large number of English books.

Conclusion : The intensive teaching of words can very well be incorporated in the teaching of English in our schools. It has to be systematic and continuous through all the classes.

At the end of the school year, each teacher of English should hand over to the next teacher the list of words and the meanings taught by her. The words confused by the students should be discussed by all the teachers and corrected by everybody. It will be helpful to set aside a suitable percentage of marks for vocabulary. The students ability to understand and use words is bound to increase.

S. BANERJEE,
Head Mistress,
Sakhawat Memorial Girls' School,
Calcutta.

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S. BANERJEE,
Head Mistress,
Sakhawat Memorial Girls' School,
Calcutta.

HISTORY TEACHERS' ASSOCIATION OF SECONDARY SCHOOLS FOR GIRLS

APARAJITA RAY

Co-ordinator

A true devotee of Historical Study once deplored that History was becoming the least admired and least loved of all curricular subjects in the Secondary schools. The thought which pricked me most, was, why was this most interesting and humane subject with a romantic, imaginative and dynamic approach fast losing its popularity? The reasons are too many, some obvious, some are controversial though. Space does not allow us a threadbare discussion here. However, during my first school visits in my new capacity this vital problem figured most prominently in the list of items for discussion with the School personnel. The candid exchange of views not only with the Headmistresses and History teachers but also with students of the Senior stages brought into sharp focus the necessity of forming a forum for freely ventilating the various problems of historical instruction. Hence the first effort of our Centre was directed to the dissemination of this worth-while idea to as many schools as possible both in the urban and in the mofussil areas. The best way to do this was of course to summon a conference of History Teachers which could result in building up a proper understanding of the importance and role of the subject. A preliminary meeting of all teachers of history of Secondary Schools for girls was therefore, held at our Institute on Saturday, the 23rd September, 1967 at 1 p.m. In the circular letter which was despatched to a large number of schools the main objective stated, was, "to improve and popularise teaching of history with a view to combating the complete lack of interest in this vital and one of the most stimulating subjects in the school curriculum in the minds of pupils especially at the senior stage."

A good assemblage was expected. It was however attended by a rather small but very sincere batch of teachers. The members present divided themselves classwise i.e. classes VI, VII and VIII forming the middle group and classes IX, X, XI composing the senior group. They prepared a list of difficulties experienced in connection with day-to-day teaching and endeavoured to offer some concrete suggestions for their solution.

It was unanimously decided in the meeting to form 'An Association for Teachers of History of the Secondary Schools for Girls' with a view to helping teachers to devise measures and implement them in a practical manner for bringing about radical improvement in the classroom teaching of history. Following office Khantura Girls' Higher

History Teachers' Association—23rd September, 1967.

Secretary	Sm. Bela Ray	Lake View Girls' Higher Secondary School
Jt. Secretary	Sm. Namita Chatterjee	Ballygunge Siksha Sadan
Treasurer	Sm. Sandhya Chatterjee	Khantura Girls' Higher School
Asstt. Treasurer	Sm. Pratima Guha Deb	Ballygunge Siksha Sadan
Social Secretary	Sm. Subrata Lahiry	Lake View Girls' High School
Asstt. Social Secretary	Sm. Sefali Sarkar	Khanpur Girls' High School

The President and Vice-President were proposed to be elected in the next meeting of the Association. The membership fee for the Association was fixed at Re. 1/- per month.

The Second meeting of the History Teachers' Association scheduled to be held in December, 1967 could not be organised owing to the continued school closures and student disturbances. We are looking forward to the next gathering which, let us hope, will infuse new life and vigour into the Association to build it up as one of the educative organisations in the academic world.

"Let us teach the rising generation the love of humanity and the greatness of peace. Let us impress on them the unity of mankind and the duty we owe to humanity as a whole."

S. Radhakrishnan

ADVISORY COMMITTEE

A meeting of the Advisory Committee of the Department of Extension Services was held on 12th April, 1967. It was the first meeting convened by the new Co-ordinator. The meeting was fairly well-attended and presided over by Mrs. N. Das, Principal and Hony. Director.

The main items of the agenda of the meeting included inter alia review of the activities of the Extension Department under Mrs. K. Karlekar, outgoing Co-ordinator during the year 1966-67 and planning for new programmes for 1967-68. While reviewing discussions veered round collection of data on "Good School Practices"—a programme introduced by the Department of Field Services of the N.C.E.R.T. As no appreciable progress was so far achieved in this field due to various factors which hampered the work of the school, it was resolved that the new Co-ordinator should offer necessary help and guidance to enterprising schools and copies of the brochures entitled "New Trends in Good School Practices" which furnished details about different types of practices should be circulated to schools.

There was complete unanimity of opinion regarding the holding of Summer Vacation courses during the first two weeks of June, 1967, and the subjects suggested were—English, Mathematics, History, Geography, General Science and Elective Chemistry. The grades mentioned covered the range from classes V to X.

It was further resolved that a meeting of the Headmistresses should be held on May 10th, 1967 to probe into the 'felt needs' of the schools in the difficult subject areas and invite further suggestions regarding the Summer Vacation Training courses and the selection of Resource Personnel in the particular fields. It was also decided that Experimental Projects and Seminar Reading Programmes for the new Year should also be discussed in this meeting.

It was decided that the Science Fair organised by the Central Science Club should be held towards the end of July, 1967 on a small scale. To discuss the programme of the Fair a preliminary meeting of the Science Teachers of different schools was agreed to be held in April, 1967.

Lastly the Incentive grant received by the Extension Department in 1964 came up for discussion. It was resolved that it should be worthily utilised by celebrating National Integration Day or holding any other suitable programme towards the end of January, 1968.

The meeting ended with a vote of thanks to the chair.

The Second meeting of the Advisory Committee was scheduled to be held on December 21st, 1967. It however could not function owing to lack of quorum which was again due to the tense political atmosphere in the city.

TO ALL READERS AND FELLOW-WORKERS

Our Centre will be thankful to receive and publish all articles, essays, write-ups and experiments relating to different facets of School teaching, Administration and Educational Activities under the Extension Services Programme. It is requested that contributions of papers may be addressed to the Extension Services Department, Institute of Education for Women, Hastings House, Alipore, Calcutta-27.

TEACHERS' WORLD

1969



DEPARTMENT OF EXTENSION SERVICES,
INSTITUTE OF EDUCATION FOR WOMEN
20-B, JUDGES' COURT ROAD, CALCUTTA-27

TEACHERS' WORLD

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EDITORS

KALYANI PRAMANIK

APARAJITA RAY

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Headmistress, Government Girls' M.P.H.S. School, Alipore—
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Sm. Anima Mukherjee, Headmistress, Baghbazar Multipurpose
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„ Mukti Chakravorty, Assistant Headmistress, Jodhpur Girls'
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„ Madhuri Das Gupta, Sakhawat Memorial Government Girls'
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SECRETARY

Co-ordinator, Department of Extension Services, Institute of
Education for Women, Alipore—Ex-officio.

DEPARTMENT OF EXTENSION SERVICES,
INSTITUTE OF EDUCATION FOR WOMEN

20B, JUDGES' COURT ROAD, CALCUTTA-27

TEACHERS' WORLD

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DEPARTMENT OF EXTENSION SERVICES,
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FOREWORD

Teacher of to-day's India have an important mission to fulfil. They have to think once again that theirs is the task of the building of the nation. It is a pleasure to note that "Teachers' World" participates actively in this gigantic task.

Kalyani Pramanik

REVIEW OF MAJOR ACTIVITIES UNDER THE EXTENSION CENTRE.

(JUNE 1968 - FEBRUARY 1969)

APARAJITA RAY

CO-ORDINATOR

SUMMER VACATION TRAINING COURSES

Summer Vacation Workshops were organised in three streams viz. Mathematics, Science and Geography from 5th to 12th June 1968. The main objective was the preparation of instructional material both in the fields of methodology and content. 36 teachers from 31 schools participated in the course. Resource personnel included 6 Faculty members both from Government and non-Govt. colleges. Various types of instructional materials were prepared and the educational exhibits were neatly displayed. In Science, demonstrations on improvised unconventional simpler apparatus given by the participants proved highly interesting. In Geography particular mention could be made of the useful visual aids e. g. maps on India, Asia and World, Pictorial chart, line and bar graph etc. The instructional tools in Mathematics helped much in the comprehension of the subject.

HISTORY TEACHERS' ASSOCIATION OF SECONDARY SCHOOLS FOR GIRLS.

A conference of History Teachers' Association of Secondary Schools for Girls was held in May, 1968. Various problems of teaching of history were discussed and some concrete suggestions for making historical instruction stimulating and lively were put forward. Several teaching units from the history syllabi of classes VI-VIII were selected by the teachers for introducing new approach to the classroom teaching of history.

HEADMISTRESSES' CONFERENCE

A conference of the Headmistresses was held in May 1968 to discuss plans for Summer Vacation Courses, Seminar Reading Programme, Audio-Visual aids, use of Library Service, Evaluation and World Unity Day.

WORLD UNITY DAY

In August, 1968 a World Unity Day was organised for the Secondary Schools for Girls' in the city area to focus attention on the vital necessity of inculcating a one-world idea and international amity in the minds of the young educands in the schools. A large number of school children nearly 450 came from 13 forward-looking schools and actively participated in the programme. The programme included inter alia diverse interesting items such as recitation, talk on the theme, group-songs, song-cum-dances and short dramatic performances and a colourful display of costumes of different global nationalities. A Poster Exhibition was simultaneously arranged to help promotion of world unity ideal. The exhibits from the different schools included maps, pictures, posters and charts etc. Prizes were awarded to all the participating institutions to enthuse the young pupils to greater activity in widening their understanding and interests. The function celebrated in a befitting manner highlighted the educative purpose underlying the scheme

PUJA VACATION REFRESHER COURSE

The Puja Vacation workshop, 1968 was held in Social Studies from 8th to 16th October. The participating teachers numbering 13 came mostly from schools in the muffasil area. They concentrated their efforts on the working out of a unit from Indian History, viz., "Unity in Diversity". The selection of the topic was quite significant as it focussed attention on the vital necessity of an integrated approach to all national problems. The Resource Personnel included 3 Faculty members of the Teacher's Training Deptt., Calcutta University. Under their valuable guidance much useful work was done in the form of elaboration of major concepts and objectives as well as useful exhibits e. g. maps, charts, pictures, time-lines etc.

CONFERENCE OF THE HEADMISTRESSES (FEB, 1969)

A conference of the Headmistresses of Secondary Schools for Girls, was organised in February, 1969 for discussion of the following agenda :—

- (a) Seminar Reading Programmes.
- (b) Good School practices.

- (c) Projects & Experiments for the Year 1969-70.
- (d) Summer Vacation Courses.
- (e) Improvement of English Teaching.
- (f) Use of Library Service.
- (g) Evaluation.

Special attention was focussed on the third item of the agenda. The Heads of Institutions discussed threadbare the specific areas for the purpose of Experiments and Projects suggested by the department of Field Services. Four areas were selected which were to be worked out in the ensuing workshops on Experimental Projects for 1969-70 in March, 1969.

The need for the improvement of English teaching in Schools was also keenly discussed. The tentative plan for organising actual demonstration classes in collaboration with the Institute of English was greatly appreciated.

THE SUMMER VACATION WORKSHOP

A SHORT REPORT ON THE COURSE OF GEOGRAPHY.

We have enrolled ourselves for the Summer Vacation Course in Geography organised by the *Department of Extension Services, Institute of Education for Women, Hastings House, Calcutta*, with a view to improve our teaching methods in the subject. We are glad to say that we have been much profited by taking the short course for a period extending only seven days. Had this course been extended for a longer period of another seven days we would have been much benefited. The length of time for this course was 7 days of 5½ hours' duration. The course started on the 5th of June '68 and ended on the 12th June, 1968.

On the inauguration day of the course (the 5th June, 1968) Dr. Kalyani Pramanik, the Principal of the Institute and the Director of the Extension Services presided over the function. She welcomed us for taking full advantages of the course. Then Sja Aparajita Ray, Co-ordinator of the course, explained the value and purpose of this short course. We have also been introduced to Sja Krishna Dutta, Lecturer in Geography of the Institute of Education for Women, Calcutta and Sja Niyati Sen Gupta, Lecturer in Geography, Girl's College, Howrah. Both of them acted as the Resource persons in our subject.

We found that 16 persons were enrolled as the trainees in Geography and we were divided into two groups. Of them 11 persons used to teach in classes from VI to VIII. We belonged to this group and we were put in charge of Sja Sen Gupta. We were asked by Sja Sen Gupta what were our difficulties in teaching this subject in our Schools. We were also asked by our teachers what should be the topic of our discussion.

We chose 'Climate' in general to be taught in class VIII standard. Finally, the title of our topic was given as "*Monsoon Climate with particular reference to Asia*" suitable for students reading in class VIII of our Secondary Schools.

Sja Sen Gupta before introducing the topic to us dealt at length the definition and the factors influencing climate, the climatic divisions of the

world and their characteristics, influence of climate on the natural and cultivated vegetation, industry and activities of mankind.

Then our teacher presented the topic in a quite different way of question-answer method. Here we found that the lesson was developed by the full co-operation of the teacher and the taught. In this lesson we observed that there was no scope for the students to be passive listeners or observers. Students as well played very important part in developing the lesson. By this method creative interest and enthusiasm grew among the students in the class. By full participation of the student the class became dynamic and living. This is the main objective of education which had a farreaching effect on the growing mind of the students. If the teacher can create such an atmosphere in the class room she fulfills the objective by using the very students as tools to achieve the end.

We learnt here also how the teacher can prepare and plan her lesson before presenting the same to the students in the class room. While presenting the topic "*Monsoon Climate with Special reference to Asia*" before us, we find that the teacher discussed with us—What is meant by climate? What are the factors that influence climate? The climatic divisions of the world, their characteristics and the influence of climate on vegetation, industry and activities of mankind. We learnt thereby that the wider objective of the topic should always be kept in view before the pupils. As for example, the teacher did not introduce '*monsoon climate*' as an isolated topic without bearing its importance and influence on mankind and world at large. Thus the students acquire a thorough grasp on the topic without memorising the lines from the text books. They try to understand the cause and effect of climate and their importance on mankind in general. Thus they can understand intelligently the climatic condition of other parts of the world and their causes also.

The outstanding points as we learn from this topic are briefly as follows :—

The monsoon winds are seasonal winds which blow in summer and winter months. The conditions necessary for monsoon are :—

- (1) A land mass with vast extent.

(2) An extensive ocean on the equatorial side of the land mass. In Summer the winds blow from Sea to land which bring moisture with them and cause rain.

In winter the condition is just the reverse. So these are dry cold winds from the land to the sea.

This is applicable in case of India and South-east Asia where we find true monsoon climate.

The monsoon lands are therefore rich in luxuriant vegetation and tropical agriculture. So the people of South-east Asia depend mainly on agriculture.

After presenting the season our teacher asked the students to go through some text and reference books and jot down the relevant points. We had a good opportunity under the guidance of our teacher to actually prepare the charts, line and bar graph etc. related to this topic - such as—

- (1) A map of the world showing the monsoon regions of the world.
- (2) A map of Asia showing the condition of Summer monsoon.
- (3) A chart showing the climatic divisions of the world.
- (4) A chart showing the relationship between climate and natural vegetation of the world,
- (5) A graph showing the temperature and rainfall condition of monsoon type of climate.
- (6) A pictorial chart showing the influence of climate on topography and vegetation.

We were shown charts and Geographical album to show how the visual aids help intelligent understanding of the topic to be discussed.

We have also recorded maximum and minimum temperatures, dry and wet bulb temperatures i.e. humidity percentage and the barometric pressure of a particular date. The above was done with the intention how the climatic data are actually ascertained with the help of the instruments referred to above. Thus we acquire the skill of preparing the charts in various manners to illustrate the topic graphically. We were also trained

to handle various instruments in the Laboratory relating to the topic. We were also shown films to show how lasting impression can be made on the students with visual illustrations.

At the end of the course an excursion to Bengal Chemical Pharmaceutical Works was arranged by the sponsor of this course. Here 60 students comprising all the subjects participated and thus we made many friends after the completion of the course.

On the last day of the course we assembled in a gathering where we read out the report embodying the contents of the whole course together with the exhibits that we prepared during the course of our study. This will show how much we have learnt from our teachers and to what extent we could actually apply this method to our students on going back to our schools after training. At the end of gathering a delightful musical variety programme was held in which both teachers and the taught joined. Lastly, our sincere thanks go to the sponsors and teachers of this course for arranging such an interesting short training.

APPENDIX A

LESSON PLAN ON MONSOON CLIMATE WITH PARTICULAR REFERENCE TO S. E. ASIA

One lesson relying on the use of the chalkboard, maps, text book, climatic charts, meteorological instruments film etc. : The lesson given below is meant for class VIII of 13 year old pupils. It seeks to show certain geographical facts and relationship regarding 'monsoon climate with particular reference to S. E. Asia'. It does so, by making the students comment on facts which are placed before them in the form of maps, board sketch, climatic charts, graph pictures and films.

Aims :

To give the students an idea of the cause of 'monsoon climate' its characteristics, distribution and effects on the land having such type of climate.

Equipments :

Wall map of Asia showing Summer and Winter conditions of monsoon, world map showing the distribution of lands having monsoon climate, sketches on the blackboard of the climatic divisions of the world, rainfall conditions and vegetation, Atlases, a line and bar graph of monsoon climate, pictures showing the influence of climate on topography and vegetation. Meteorological instruments—Projector etc.

Method : (Oral questioning and instruction)

- (1) Look at the wall map of the world and name the places having monsoon type of climate. —Ans
- (2) Open your atlases to page, on which latitudes are the monsoon areas located ? Ans
- (3) When does the sun shine vertically in the tropic of cancer ?
Ans.....

- (4) Which parts become hotter between the land and the sea in summer? Ans
- (5) What will then be the condition of pressure of the wind between the land and the sea? Ans
- (6) What is the result of variation in such pressure condition? Ans.....
- (7) In which direction will the wind blow at that time in those places? Ans
- (8) Is anything carried by the wind blowing to the land from the sea? Ans
- (9) While blowing landward when forced to rise up due to relief of the land what will be the result? Ans
- (10) Which part of the high land will receive more rain? Ans.....
- (11) What will be the condition of the place on the other side of the range? Ans.....
- (12) *In summer* which parts of Asia will be the areas of intense low pressure? Ans.....
- (13) What will be the pressure conditions over the southern and eastern seas? Ans.....
- (14) 'South and Eastern Asia have wet on-shore winds in summer' -Why? Ans.....
- (15) Why the summer winds are from southwest in India & Burma, S. E. in China and East in Japan? Ans.....
- (16) What's the meaning of monsoon? Ans.....
- (17) Name the states of India over which the tropic of cancer passes? Ans.....
- (18) Which part of India become hotter in summer? Ans.....
- (19) In summer where will be the centre of low pressure in India? Ans.....
- (20) Look at the climatic map of India & say in which part the monsoon wind first breaks in? Ans.....
- (21) Look at the climatic map and say in which direction it will continue to blow? Ans.....

- (22) Why does the western part of the western Ghats receive heavy rainfall? Ans.....
- (23) Which other parts of India will have the maximum rainfall besides western ghats? Ans.....
- (24) Look at the map and find out in what way these winds reach western India? Ans.....
- (25) Why do the western parts of India receive less rain than Eastern India? Ans.....
- (26) Look at the rainfall map of India and suggest for the distribution of annual rainfall. Ans.....
- (27) Which are the rainiest parts of India and why? Ans.....
- (28) Account for the aridity in Rajasthan. Ans.....
- (29) Look at the graph and tell which are the rainiest months.
Ans.....
- (30) Find out the month having the maximum temperature.
Ans.....
- (31) Do the temperatures vary throughout the year? Ans.....
- (32) Find out the total amount of annual rainfall. Ans.....
- (33) Is the total rainfall high or low? Ans.....
- (34) What do you think about the distribution of pressure in Asiatic Winter? Ans.....
- (35) Why most of the regions of Asia are dry in Winter?
Ans.....
- (36) What areas according to you may get rain in winter also?
Ans.....
- (37) Name the areas of India having two rainy seasons. Ans.....
- (38) Which are the other two countries receiving winter rain?
Ans.....
- (39) What will be the main agricultural products in South East Asia? Ans.....
- (40) Which parts of Asia will prosper in agriculture and why?
- (41) In what parts of India will you find broadleaved evergreen forest?

- (42) Why thorny bushes are the characteristic vegetation of Rajasthan area ?
- (43) Where do you expect to get more deciduous variety ?
- (44) Can you suggest where will you find the coniferous trees ?
- (45) Why 'the people of Darjeeling or Punjab are more hardy than those in the plains of Bengal'—why ?
- (46) In which ways does the climate influence people's activities ?

OBJECTIVE TEST :

1. Put the sign X or V at the end of the sentences :—

- (a) Madras and Ceylon have two rainy seasons.
- (b) The Eastern side of the Western Ghats receives heavy rainfall.
- (c) Calcutta receives more rain than Darjeeling as it is situated near the sea.
- (d) The amount of rainfall decreases as the winds approach westward along the Ganges Valley.
- (e) Cherrapunji & Mousinramgram in Assam record the highest of rainfall in India.

2. Fill in the blanks :—

- (a) The term monsoon means.....
- (b) The conditions necessary for monsoons are a vast with considerable and a vast on the side of the land mass.

3. *Correct the following sentences*

- (a) A centre of high pressure develops over Central Asia in Summers.
- (b) In Summer the dry off shore winds blow from the sea to the land.
- (c) Due to monsoon winds in winter south east Asia including India receive heavy rainfall.
- (d) Tropical agriculture thrives well in Southeast Asia due to winter monsoon.
- (e) In Summer, the winds are south-westerly in China and Japan.

P R O F O R M A

Instructional Materials :

SUBJECT :
Geography

TEACHING UNIT :
Monsoon climate with special
reference to Asia :

LENGTH OF TIME REQUIRED:
7 days of $5\frac{1}{2}$ hours excluding
 $\frac{1}{2}$ hour tiffin period :

CLASS :
VIII

(a) Major Concepts (Basic Understanding or "Big Ideas")	(b) Content : Outline	(c) Unit Objectives (Knowledge, Understandings, Skills, attitudes, applications)
<p>I. First Group of Concepts :</p> <p>(a) What is meant by climate ?</p> <p>(b) Factors influencing climate.</p> <p>(c) Different climatic types of the world and their characteristics.</p> <p>(d) Influence of climate on the natural and cultivated vegetation, industry and activities of mankind.</p> <p>(e) Monsoon climate, its origin, characteristics, and distribution with Particular reference to Asia.</p>	<p>(a) Climate--average conditions of temperature, rainfall, humidity, winds, sunshine, cloudiness typical of that place.</p> <p>Factors of climate--average temperature, the annual range of temperature, the total annual rainfall, the seasonal distribution of the rainfall, the prevalent winds and the amount of sunshine and cloudiness.</p> <p>Climatic types of the world--Four broad climatic divisions of the world--</p> <p>(1) The cold zone</p> <p>(2) The cool temperate zone</p> <p>(3) The warm temperate zone</p> <p>(4) Tropical zone.</p> <p>Influence of climate on vegetation, agriculture, industry, economy & the activities of man.</p> <p>The variation in vegetation, agricultural crops, finished products and the occupations is due to different climatic conditions in different parts of the world.</p>	<p>(1) Knowledge of the subject matter i. e. the topic 'Climate' in a wider Perspective. Thorough understanding of the subject--interaction exists between natural environment and people. The natural vegetation, topography, drainage condition, agricultural crops, industry and people's activities are influenced and modified by climate.</p> <p>UNDERSTANDING : Mechanism of climate Phenomena their characteristics--its influence on human life and understanding.</p> <p>SKILLS : 1) Observation and recording of the meteorological instruments and plotting the datas.</p> <p>2) Skill of applying the theoretical knowledge into practice.</p> <p>3) Skill of drawing a plan for the teaching unit.</p> <p>ATTITUDES :</p> <p>1) Tend to grow a living interest on the subject-to have a team spirit and the attitude of co-operation between the teacher and the taught.</p> <p>2) Sincerity and devotion to work--acquiring mental alertness, self confidence, satisfaction for creative activities and pleasure to work as a team.</p> <p>APPLICATIONS : To apply this knowledge during teaching into actual practice in the class room situation.</p>

Contd.—2

SUBJECT :

Geography

TEACHING UNITS :

Monsoon climate with special
reference to Asia :

LENGTH OF TIME REQUIRED :

7 days of $5\frac{1}{2}$ hours excluding
 $\frac{1}{2}$ hour tiffin period :

CLASS :

VIII

(d)

Class room procedures

- (1) The trainees took active part in developing the lesson as well—they were not passive listeners.
- (2) Psychological method i.e., question-answer method was introduced to bring proper atmosphere in the class room.
- (3) Lesson was presented all through with the help of visual aids i.e. showing the charts and educational films, drawing necessary diagrams on the board, performing experiment on the laboratory, recording the climatic datas with the help of the instruments, such as a Max. & Min. thermometer, Dry & Wet bulb thermometer, Rain guage, Barometer, Wind-vane etc.
- (4) The students learn by activity and workshop method.

(e)

Student Activities

- STUDENTS PREPARED THE FOLLOWING CHARTS :
- (1) The map of the world showing monsoon regions.
 - (2) A map of Asia showing the condition of Summer monsoon.
 - (3) A chart showing the relationship between the climate and natural vegetation of the world.
 - (4) A chart showing the climatic divisions of the world based on latitude.
 - (5) A line and bar graph showing the temperature and rainfall condition of Monsoon climate.
 - (6) A pictorial chart showing the influence of climate on topography and vegetation. Students also recorded maximum and minimum temperatures, dry & wet bulb temperature i.e. humidity percentage and the barometric pressure of the particular date.

(f)

Student Materials

- STUDENTS USE THE FOLLOWING MATERIALS AND INSTRUMENTS :
- (1) Maximum & Minimum Thermometer.
 - (2) Dry & Wet Bulb Thermometer.
 - (3) Rain Gauge.
 - (4) Barometer.
 - (5) Wind-vane.
 - (6) Atlas.
 - (7) World map. Map on Asia, Climatic charts, Geographical album, Geographical journal, Pictures, Text and reference books, Projection etc.
 - (8) Drawing sheets, Graph papers, Poster colour, Tracing papers, Chinese Inks, Liquid gums, Photo Corners, Scales, Pencil, Rubber, Scissor, Stencil pen, etc.

INSTRUCTIONAL MATERIALS PROFORMA (Contd.)

Contd.—3

(14)

SUBJECT :
Geography

TEACHING UNIT
Monsoon climate with special
reference to Asia :

LENGTH OF TIME REQUIRED :
7 days of 5½ hour excluding
½ hour tiffin period :

CLASS :
VIII

(g) Teacher Resources	(h) Evaluation Procedures and Techniques	Additional Comments
<p>Sm. Niyati Sen Gupta M.A., B.T. Lecturer in Geography— Girls' College Howrah. Formerly of Institute of Education for Women, Calcutta and Chandarnagore.</p>	<p>The Students prepared a report on the subject 'Monsoon climate' with detailed treatment to Asia. It embodied the contents together with the lesson plan. They further prepared necessary apparatus required for the lesson and submitted the same as exhibits on the last day of the term. They also read out the whole report before the gathering.</p>	<p>(1) The duration of the course seems to be short. If the course be of 15 days duration it could have been more effective and beneficent for the trainees.</p> <p>(2) To my mind if the class was not split up into two groups the teachers jointly could be more helpful to all the students within such a short time at their disposal.</p> <p>(3) I beg to suggest that the Extension Library can be more useful to the students if it contains latest Text and Reference books, journals on Geography and Education.</p> <p>(4) Lastly, I am thankful to the co-ordinators for the preparation of proforma containing valuable hints for guiding the unit of work within such a short time successfully. I am also thankful to her for the conveyance arrangement made and all facilities and co-operation given for the completion of this course.</p>

REPORT—PREPARED BY THE SENIOR GROUP— GEOGRAPHY TEACHERS

The Department of Extension Service, Institute of Education for Women, Hastings House, Alipore, Calcutta, invited the teachers from different parts of Calcutta for a short Course Summer Vacation training.

About 40 teachers of different Science, Geography,—Maths, and Pure Science came to the training college with their problems—

The Co-ordinator Miss Aparajita Ray made us understand the object of this training on the development of Instructional Materials—the goal of the authorities to benefit the teachers—which indirectly means to benefit the students. She first introduced us with the Principal of the college Dr. Pramanik and with the different professors of the different departments. Specially Mrs. K. Datta and Miss Neoti Sengupta under whose guidance our geography course had been conducted.

The course held from the 5th June to the 12th June, 1968. Within these 7 days course all sorts of help they rendered to us—all difficult problems the solved orally as well as written.

Our Geography group was subdivided into two main sub-groups—Senior and Junior group.

One of the problems of ours (Senior group's) was on the drainage patterns of the different localities. Our guide Mrs. K. Dutta with her cheerful manner of teaching solved the problem very easily. She first gave us a proforma of teaching—a teaching plan on this unit (on the drainage pattern)—on the basis of—(a) the scope of the subject (b) a general concepts of his ideas—(c) the content matter, (d) class room procedure—(e) the assignment—the knowledge acquisition (f) the teachers resources-material aid (g) the student activities—lastly how to get the response of the student—which entirely depends upon the good teaching method accompanied with the subject matter. Here one good thing that we marked—that our guide's capacity of equabalancing the matters with the method (teaching plan) the real teaching capacity.

The area on the drainage pattern was divided under four marked units :—

First —the factors that control the drainage patterns— a initial slope (b) rock structure (c) inequalities of rock hardness (d) climatic effect on rocks (c) Geological history of the area.

Secondly —Different types of drainage patterns was explained with the help of materials—(we made charts blocks and models)—the dendritic pattern—trellies patterns, barbed pattern, complex drainage pattern, —the braided pattern—deranged, centripetal, annular patterns etc.

Thirdly—We took examples from the different parts of India—say for examples the barbed pattern on the western ghat area—river Saravali the main example—the radial pattern in Nilgiri area Centripetal in Sambar lake area—the complex drainage pattern in Vindhya Parbat area—Beltic drainage pattern in Bengal, in Godavari Krishna Cavery delta area etc

Lastly—We took detail examples of Bengal—where we find—Bendnetic pattern in North Bengal braided pattern in Meghna—Padma area—and deltic pattern in Southern portion specially in Sundar Ban area—our training was most interesting, useful and beneficial.

K Dutt
Institute of Education
for Women

TYPES OF DRAINAGE PATTERN WITH SPECIAL REFERENCE TO INDIA

- (a) *Scope* : Water resources are essential for the economic development of a country. It is particularly important in case of India which is a 'land of rivers' and an agricultural country. The study of drainage pattern helps in forming useful, essential facts. It develops mental, intellectual and cultural aspects of our mind. The mental aptitudes brought into play are observation, imagination, judgment, memory and reasoning. The intellectual aspect is satisfied when a relationship is established between underlying rocks and landscape.
- (b) *Objectives* :
- (i) To acquire practical knowledge about the topography and climate of a country.
 - (ii) Understanding relationship between geography, geomorphology and geology.
 - (iii) To acquire knowledge of the nature of rocks and structure.
 - (iv) Knowledge of the folds, faults and intrusions etc. exposed on the surface.
 - (v) To think about the problem of different types of drainage patterns.
 - (vi) Explanation of different types.
 - (vii) Study of hydrological system of India, and application of new knowledge in finding out different patterns.
 - (viii) Location of different types in different regions of India.
 - (ix) Application of the knowledge to West Bengal and to find out the different patterns.
- (c) *Content* : Unit no. 1
- The drainage pattern of a country is governed by several geographical factors.

- They are :
- (a) initial slope of the land
 - (b) inequalities in rock hardness
 - (c) structural control
 - (d) recent diastrophism
 - (e) recent geologic and geomorphologic history of the drainage basin.

Unit no. 2.

The different types may broadly be classified into (a) general,
(b) local.

- (a) *General*
 - (i) *Dendritic* : In this pattern we find irregular branching of tributary streams in many directions and at any angle. They develop upon rocks of uniform resistance and imply a notable structural control. These patterns are most likely to be found upon nearly horizontal sedimentary rocks or in areas of massive igneous rocks.
 - (ii) *Trellis* : This pattern displays a system of sub-parallel streams usually aligned along the strike of the rock formations or between parallel or nearly parallel topographic features recently deposited by wind or ice. The major streams make nearly right-angled beds to cross or pass between aligned ridges. The trellis pattern reflect marked structural control of most stream courses, except perhaps the trunk streams. Fault trellis pattern may be found in areas of parallel faults with alternate bands of strong and weak rock.
 - (iii) *Barbed* : drainage pattern usually have only local extent and will be found at or near the headwater portions of drainage systems. Most barbed patterns are the result of stream piracy which has effected a reversal of the drainage of part of a separate river system.
 - (iv) *Rectangular* : In this pattern both the main stream and its tributaries display right angled bends. They reflect control exerted by joint or fault systems.

- (v) *Complex* : pattern is visible in areas of complicated geologic structure and geomorphic history.
- (vi) *Dearanged* : marked by irregular stream courses which flow into and out of lakes and have only a few short distributaries. Much of the interstream area is swampy and streams are mere threads of water through the swampy areas.

Local :

- (i) *Centripetal* : converging into a central depression.
- (ii) *Radial* : streams diverging from a central elevated tract like domes, volcanic cones, isolated conical and sub-conical hills.
- (iii) *Parallel* : Where there are pronounced slope which lead to regular spacing of parallel or non-parallel streams.
- (iv) *Annular* : patterns may be found around naturely dissected domes which have alternating belts of strong and weak rock encircling them.

(d) *Teaching hints :*

All the above mentioned types were clearly explained and students were asked to study Ordnance Survey Maps on different parts of India and to find out particular patterns. Then the students were asked to prepare block diagrams illustrating different patterns. Film strips were shown illustrating the life history of a river. Discussions followed and then the participants were asked to prepare a map of India showing the hydrological patterns. They also prepared individual models showing major types.

- (e) Evaluation tools were prepared on different units.

(f) *Reference materials :*

Following books, journals and maps were consulted :

Books and Journals :

1. Principles of Geomorphology—W. D. Thornbury.
2. India & Pakistan—O. K. Spate
3. An outline of Geomorphology—Woolridge & Morgan
4. Principles of Physical Geography—Monkhouse
5. Bengal in Maps—Dr. S. P. Chatterjee
6. Ganges Belts—Prof. K. Bagchi
7. Journals - Geographical Review of India.
8. National Atlas of India.

Maps : Ordnance Survey Maps—Scale 1" : 1 mile on different parts of India. Specially Western Ghats, Rajasthan & Bengal

Development of Instructional Material.

SUBJECT :
Geography

FROM 5.6.68 TO 12.6.68

FOR CLASS : XI

(a) Major Concepts (Basic Understanding of Ideas)	(b) Content : Outline	(c) Unit Objectives (Knowledge, understandings, skills, attitudes)
<ol style="list-style-type: none"> 1. Definition of 'drainage' or 'hydrology' 2. Importance of drainage pattern. 3. Different types of drainage pattern. 4. Location of different patterns in different regions of India. 5. The most common type visible in India. 6. Application of the knowledge to West Bengal. 	<ol style="list-style-type: none"> 1. Role of water resource in the development of a country. 2. Importance of this resource in case of an agricultural country. 3. Typical examples—how they differ from one another. 4. Structural control in the development of drainage patterns. 5. Important features of different patterns. 	<ol style="list-style-type: none"> 1. To enable the teachers to form a clear idea of structural control and its relation with hydrology and also to equip them with the knowledge and confidence to distinguish different types of pattern by the children properly. 2. To prepare teachers for offering better help to children for understanding geographical phenomenon. 3. To help teacher for creating an atmosphere of geography. 4. Explain problems on the basis of geographical principles.
<p align="center">(d)</p> <p align="center">CLASSROOM PROCEDURES</p> <p>THEORETICAL :</p> <p>Discussion, explanation of different patterns, mutual questioning and presentation of problems from India.</p> <p>PRACTICAL : Use of National Atlas showing the hydrological system of India.</p> <p>Preparation of block diagrams and models on different patterns from 1" : 1 mile scale map.</p> <p>Use of epidiascope, Filmstrip etc.</p> <p>LIBRARY REFS : Several textbooks & journals were consulted.</p>	<p align="center">(e)</p> <p align="center">STUDENT ACTIVITIES</p> <ol style="list-style-type: none"> 1. Preparation of a map of India showing the different drainage patterns in different regions. 2. Preparation of three-dimensional models on different types on typical areas of India. 3. Excursions & short trips to areas of geographical interest. 4. Use of specific colours on different topographical features and in the map. 	<p align="center">(f)</p> <p align="center">STUDENT MATERIALS</p> <ol style="list-style-type: none"> 1. Books on Geomorphology. 2. Journals—Geographical Review of India. 3. Study of National Atlas. 4. Pamphlets prepared by N. C. E. R. T. construction of evaluation tools.

PROFORMA

Instructional Materials :

SUBJECT :
Mathematics

TEACHING UNITS :
Measurement of area & volume

LENGTH OF TIME REQUIRED :
9 or 10 periods

CLASS :
VII & VIII

(a) Major Concepts (Basic Understanding or "Big Ideas")	(b) Content : Outline	(c) Unit Objectives (Knowledge, Understanding, skills, attitudes, applications)
<p>I. First Group of Concepts :</p> <p>(a) Concept of different linear units.</p> <p>(b) „ „ „ square „</p> <p>(c) „ „ unit of volume</p> <p>(d)</p> <p>II. Second Group of Concepts etc.</p> <p>Concepts of construction of triangles from given data by the method of analysis.</p> <p>III. Concept of directed numbers.</p> <p>(1) Procedure is through questions and answers. Clear idea is to be given through suitable charts and models, black-board pictures are essential.</p> <p>(2) The teacher may show a triangle made of wire. The two sides of the triangle are opened one by one and placed in a straight line which is the perimeter of the triangle.</p>	<p>(i) Calculation of area of rectangles & squares (ii) perimeter (iii) area of rectangular path inside or outside a rectangular garden (iv) area of the four walls (v) rectangular solids and cubes.</p> <p>Construction of a triangle having given the angles at the base and the perimeter.</p> <p>(1) Idea of directed numbers</p> <p>(2) Addition</p> <p>(3) Subtraction</p> <p>(4) Multiplication</p> <p>(5) Division.</p> <p>(1) Some actual measurements e. g. measurement of the length and breadth of a blackboard, or perimeter of the classroom.</p> <p>(2) Students may make different triangles with the help of wire according to the data given.</p>	<p>1. To calculate area.</p> <p>2. To use the knowledge in practical life.</p> <p>3. To get clear idea of measurement of area & volume.</p> <p>(1) To develop the power of analysing situations and drawing out necessary conclusions.</p> <p>(2) To develop skill in drawing neat and accurate geometrical figures.</p> <p>(3) To construct triangles from given data.</p> <p>(4) To get clear idea regarding geometrical instruments.</p> <p>To develop clear idea of directed numbers.</p> <p>(1) Charts & models to be made by the pupils themselves.</p> <p>(2) Instrument Box, Scale, Text Books.</p>

SUBJECT :
Mathematics

TEACHING UNIT :
Measurement of Area & Volume

LENGTH OF TIME REQUIRED :
9 or 10 periods

CLASS :
VII & VIII

(a) Major Concepts (Basic Understanding or "Big Ideas") Surface, Area & Volume	(b) Content : Outline	(c) Unit Objectives (Knowledge, Understandings, Skills, attitudes, applications)
<p>CONTINUED :</p> <p>(3) The teacher may proceed through questions and answers with the help of suitable models and pictures on the blackboard.</p> <p>(1) Arithmetic by J. C. Chakravarty. (2) Arithmetic by K. C. Nag. (3) School Geometry by Hall & Stevens. (4) Geometry by Charu Ch. Chakravarty. (5) Elements of Algebra by K. P. Basu. (6) Algebra by Dr. N. Sen. (7) Algebra by K. C. Nag.</p>	<p>(3) Construction of a scale from positive numbers to negative numbers.</p> <p>(1) Various types of questions are to be set up.</p> <p>(2) Construction of triangles with the help of wooden sticks and various types of questions.</p> <p>(3) Construction of tables and charts to illustrate the idea of directed numbers and their addition, multiplication and subtraction and various types of questions.</p>	<p>(3) Scale, text-books.</p> <p>(1) Pupils are to be taken to gardens or fields so that they may apply their knowledge to problems of real life.</p> <p>(2) nil</p> <p>(3) Measurement of temperature and drawing the centigrade scale and Fahrenheit scale.</p>

REPORT ON THE REFRESHER COURSE IN MATHEMATICS

On the 5th June 1968 we, the teachers from different schools gathered in the library hall to take a short training in Mathematics, Science and Geography. Our Co-ordinator introduced us to the principal and resource persons.

Prof. S. P. Mukherjee and Prof. Bijaya Gupta guided us in our work. We were very eager to know about the nature of the training we were to undergo. We had many questions in our mind about the techniques to be followed while teaching mathematics in the class.

We discussed with Prof. Mukherjee and Prof. Gupta about the various topics and problems faced by us while teaching mathematics to the young pupils.

We let Prof. Mukherjee know our difficulties and the following topics were selected for our work :-

- (1) Formulæ and directed Nos. in Algebra.
- (2) Measurement of Area and volume in Arithmetic.
- (3) Teaching of theorems and Problems in Geometry.

Prof. Mukherjee discussed about the techniques of teaching the topics.

They told us that the way of teaching should be such that the students should all participate in the lesson and answer the questions put to them by the teachers. From them we came to know the uses of charts, and prepared some charts.

As instructed by them we were divided into two groups. One was led by Sm. Jharna Sen and included (1) Malaya Mitra (2) Sati Chakravarty (3) Nandita Das Gupta (4) Khuku Dey. The Second group which was led by Sm. Abantika Das, consisted of (1) Bidita Ghose (2) Mina Chakravarty (3) Sovona Dam (4) Pratiba Bhattacharjee.

The topics were studied under the following heads :—

(1) Objectives, (2) Scope (3) Contents (4) Method (5) Evaluation.

The first group worked with the following sub-topics :—

(1) Objectives

(2) Scope

(3) Evaluation.

and the 2nd group took the charge of following sub-topics :—

(a) Methods.

(b) Contents

They advised us to teach area and volume. Some teaching aids must be used to give the pupils a clear conception of area and volume, such as rectangular cardboard, school-room apparatus, models.

The clear conception of units must be given with the help of suitable models. Suitable examples from real life should be considered. Use of suitable diagrams on the black board should also be made.

To teach the Directed numbers some charts showing the point of reference may be quite useful. To give the idea of directed numbers the idea of profit and loss, reading of temperature, years before and after Christ, direction of South and North, East and West etc. may be useful.

To teach theorems and riders, the teacher should use the analytic method. Suitable models also may be used.

Then Prof. Gupta explained the procedure of teaching Indices and Surds very clearly.

We had many things to learn from them but the time was limited. So we could not proceed further.

Then we visited the Bengal Chemical Pharmaceutical Works for an excursion. There we found the preparation of A. T. S., T. A. B. C., and Snake venoms etc.

We were offered a hearty welcome there and enjoyed the trip very much. We are very thankful to the Extension Service Department for the organisation of this course, which has been very useful to us.

We expect to have the help of the Extension Service Department in future regarding the various problems, we have to face in our class rooms.

Prativa Bhattacharjee
(Mathematics Group)

TEACHING OF DIRECTED NUMBERS IN ALGEBRA

- Teaching Units :*
- (a) Addition of Directed Numbers.
 - (b) Subtraction of Directed Numbers
 - (c) Multiplication of Directed Numbers.
 - (d) Division of Directed Numbers.

Length of time :— 3 periods

Class :— VII

Scope of the topic :—

- (1) It helps in keeping the accounts in our every day life.
- (2) It gives clear idea about direction, oppositeness and position.
- (3) Directed numbers are helpful in reading instruments.
- (4) They give ideas regarding past and future events.
- (5) The knowledge of directed numbers is essential for graphical representation of problems.
- (6) The study of directed numbers is an integral part of the study of Algebra.

Objectives :—

- (a) To develop pupil's reasoning power and clear understanding of directed numbers and their meaning and uses.
- (b) The knowledge of directed numbers is essential for practical life.
- (c) To acquire efficiency in the four rules (Addition, subtraction, Multiplication and division) of Mathematics.
- (d) To have a clear idea regarding the of 0, +ve and -ve signs.
- (e) In giving idea regarding assets & liabilities, north and south latitude, temperatures above and below zero.

Concepts :—

The directed number is a number which gives a concrete idea of the direction of a definite thing. Such as

- (1) If +20 means a temperature of 20 above zero then -20 means a temperature of 20 below zero.
- (2) If +100 means A.D. 100 then -100 means 100 B. C.
- (3) If +10 means an asset of Rs. 10 then -10 means debt or less of Rs. 10.

Contents :—

- (1) Addition
- (2) Subtraction
- (3) Multiplication
- (4) Division

Addition :—

Teaching Aids :—Scale and thermometer.

Teacher's activity :—

Teacher should draw a straight line on the blackboard. The straight line is divided in two equal parts of unit length. The middle point is expressed as 0 which is known as origin.

The figure written on the right side of 0 is expressed as positive or having positive sign and the figures written on the left side is expressed as negative or having negative sign. The teacher should give an example to the pupil to give a clear conception.

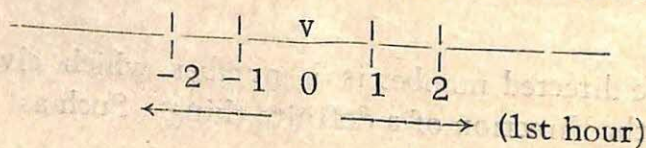
- (1) A person walking first 4 miles then walks 2 miles from the north to south (i.e. left to right) both in the same direction.

The Pupil's activity :—

The pupils are asked to find out the final position of the man.

- (2) The teacher should give other examples.

A man travels from left to right 2 miles in the first hour and again he travels 5 miles from right to left in the second hour. At what distance he would be at the end of the second hour?

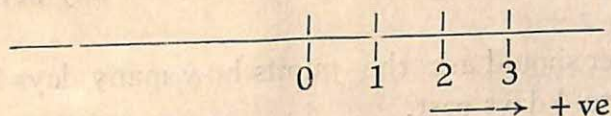


1st hour + 2 miles

2nd „ - 5 „

$$\begin{array}{r} -5 \\ -3 \end{array} \text{ „ } \quad \text{i.e. } (+2) + (-5) = -3$$

- (3) A man travels 4 miles from left to right in the first hour and again he travels back 2 miles from right to left in the 2nd hour. At what distance is he at the end of the 2nd hour?

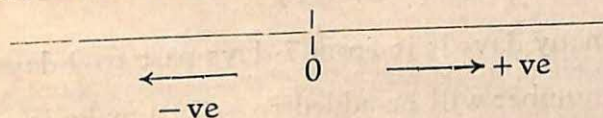


1st hour + 4 miles

2nd „ - 2 „

$$(+4) + (-2) = +2$$

- (4) A man travels 2 miles from right to left in the first and again 3 miles in the same direction. At the end of the 2nd hour what would be the position of the man?



1st hour = - 2 miles

2nd „ = - 3 „

$$(-2) + (-3) = -5 \text{ miles.}$$

Pupils activity : -

Sum	Starting point on scale	Direction L to R	Answer (end point on scale)
$(+6) + (+2)$			
$(+6) + (-2)$			
$(-6) + (+2)$			
$(-6) + (-2)$			

The pupils are asked to fill up blanks.

Subtraction : -

Teaching Aids : Scale, classroom apparatus.

Teacher's Activities :

Teacher should draw the same figure as in addition.

Teacher should give an example to the pupil. Considering the present day as zero day from now, yesterday can be considered as -1 , day from now. day before yesterday -2 days from now and so on. Similarly to-morrow can be considered as 1 day ahead or $+1$ day hence as $+$

- (1) Teacher should ask the pupils how many days is it from 6 days hence to 4 days past.

The pupils are asked what number would be added to $+6$ to make it 4.

$$-4 - (+6) = -10$$

- (2) How many days is it from 3 days past to 4 days hence.

$$4 - (-3) = +7$$

- (3) How many days is it from 7 days past to 9 days past.

What number will be added to -7 to make it -9 .

$$-9 - (-7) = -2$$

pupils activities : -

	Starting point on the scale	Amount to be subtract	Direction to L to R	Answer (end point on scale)
$(+6) - (+2)$				
$(+6) - (-2)$				
$(-6) - (+2)$				
$(-6) - (-2)$				

The pupils are asked to fill up the blanks.

Multiplication :—

Teaching aids :— classroom apparatus and a scale.

Teachers' activities : —

Teacher should draw the same figure

North to South is expressed as + ve sign.

South to North is expressed as - ve sign.

Before 12 o'clock is expressed as - sign.

After 12 o'clock is expressed as + sign.

Teacher should show an example with the help of a chart.

Starting at 12 o'clock a train travels south-ward at the rate of 25 miles per hour for 3 hours where is at the end of that time ?

$$(+25) \times (+3) = +75$$

- (2) A car arrives at a given point after travelling south-ward at 25 miles per hour for 3 hours. From what place did it start ?

$$(+25) \times (-3) = -75$$

- (3) A train starts new and travels north-ward as 25 miles per hour for 3 hours. What will be it at the end of that time ?

$$(-25) \times (+3) = -75$$

- (4) A train arrives at a given point after travelling north-ward at 25 miles per hour for 3 hours. From what point did it start ?

$$(-25) \times (-3) = 75$$

Hence we get the formulæ :—

$$(+ve). (+ve) = +ve ; (-ve). (+ve) = -ve$$

$$(+ve). (-ve) = -ve ; (-ve). (-ve) = +ve$$

Division : —Reverse process of the multiplication.

Evaluation :—

A. Construction of Tables and charts to illustrate the idea of directed numbers.

B. Written test. Class—VII (Time—45 minutes)

1. Find the sum using arrows on the number line

(a) $(+3) + (+2)$

(b) $(-5) + (+3)$

2. Supply the missing numbers :—

(a) $10 - (\quad) = +2$

(e) $(\quad) \times (+6) = -12$

(b) $(-3) - (-2) = \dots\dots\dots$

(f) $(+1) \times (\quad) = -1$

(c) $(+3) + (-5) = \dots\dots\dots$

(g) $32 + (\quad) = -4$

(d) $(-12) - (\quad) = -7$

(h) $(-72) + (-8) = (\quad)$

3. A car travels towards north at the rate of 15 m. per hour and it runs 20 m.p.h. in the next hour. What is the total distance covered by the car in 2 hours ?
4. A train 'A' runs towards north at the rate of 40 m.p.h. and another train 'B' runs towards south at the rate of 2 m.p.h. What is the distance between two trains in one hour ?
5. A man walks 20 k.m. east, then 8 k.m. east and afterwards 6 k.m. west. How far east is he from the starting point ?
6. Fill up with correct words or numbers from brackets.
- (a) The sum of $(+8)$ and (-6) is..... $(+2, -2)$
- (b) When -20 is divided by -4 the result will be.....
 $(-5, -24, +5, +16)$
- (c) -1 is..... 3 are (greater than, less than, equal to)
7. A boat floats towards the current for 3 hours at the rate of 5 m. per hour and then floats against the current for 2 hours at the rate of 3 m.p.h. At what distance the boat will be new from the starting point ?
8. A man buys mangoes of Rs. 6 at the rate of 4 mangoes per rupee. Then he sells them, 3 mangoes per rupee. What would be his net profit ?
9. A seller sells 15 metres cloth for Rs. 105. What is the cost of 1 metre ?
10. Assumption :—
 Against the current means negative
 Towards the current means positive

A boat floats 30 miles against the current in hours. What is the speed of boat ?

Students activities :—

Construction of scale numbering from -10 to $+10$.

Students Materials : Scale, Text-books.

Teacher's Resources :—

- (1) The teaching of Secondary Mathematics--Butler and Wren
- 2) Elements of Algebra—Three authors
- (3) Elementary Mathematics—U. Venkita Rao.

Additional Comments :—

Measure the temperature of hot water and that of a freezing mixture.

REPORT ON THE SUMMER VACATION COURSE ON GENERAL SCIENCE

On the first day (5.6.68) of the vacation course, after a preliminary discussion teacher pupils suggested "Functions of leaf" and "Formation of images" as two units for going through.

As time at our disposal was short it was ultimately decided to analyse and point out the scope of experiments etc. on the first named unit, according to the proforma supplied by the Co-ordinator and to leave it at that so far as theoretical discussion was concerned and to take up the other unit in all its respects.

It was also decided that the morning half of the time should be allotted to theoretical discussion and Library reading while the evening half after tiffin should be devoted to practical work in the laboratory.

Accordingly on the second day (6.6.68) a complete analysis and the scope of experiments and theoretical discussion under the unit "Functions of Leaf" were done.

Then from the third day (7.6.68) "Formation of images" was taken up as a unit according to the scheme. The nature of the topics discussed has been put in the proforma supplied.

The course was finished by 11.6.68 forenoon, the afternoon being allotted to an Excursion to Bengal Chemical Works at Maniktala.

An exhibition of apparatuses and experiments set up was held on 12.6.68.

Theoretical Work :—This was based on explanation of phenomena of reflection and refraction first from a concept of Geometrical optics and all questions raised by the teacher-pupils regarding their difficulties in

presenting any topic to school students were sought to be cleared up by reference to facts, experience and experiments. With a view to give the teacher-pupils a wider back-ground by way of refreshing the memory of students of natural science and as a new presentation to students of Biological Science a discussion on wave-motion, wave theory of light and corpuscular theory of light and how far and to what extent these theories explained facts of optics, was initiated and thoroughly gone through, so far as reflection and refraction were concerned. Students took an intelligent interest and active part in this discussion.

Practical Work :—Following conventional experiments were arranged by the teacher-pupils :

- (1) Total reflection forming an inverted image.
- (2) Total reflection forming a shining surface of a partly filled test tube in water.
- (3) Total reflection forming a shining surface round a metal ball covered with soot and plunged in water.
- (4) Phantom doll arrangement.
- (5) Real images formed by a convex lens and a concave mirror.
- (6) Respiration of leaves.
- (7) Transpiration of leaves.
- (8) Stoma under microscope.

The following experiments were improvised :—

- (1) An apparatus to prove the laws of reflection.
- (2) An apparatus to show the phenomenon of refraction.
- (3) A model to show the construction of a convex lens from two spheres.
- (4) A model to show the construction of a concave lens from two spherical surfaces.
- (5) A model of a Kaliedoscope.
- (6) A model of a telescope.

Library Work :—From day to day the following books were recommended for consultation :

- (1) "General Science Hand Book of Activities"—NCERT.
- (2) "You and Science"
- (3) "Teaching of General and Physical Science"—Richardson and Cahoon.
- (4) Following books and pamphlets were recommended to students for preparing objective test on the unit gone through.
 - (a) Measurement and Evaluation in the Secondary School—Greene, Jorgensen and Gerbenich.
 - (b) The concept of Evaluation in Education—NCERT.
 - (c) Evaluation in General Science—NCERT.

Preparation of objective Tests :—Students were divided into groups, towards the end of the course to prepare objective Tests. They prepared quite a number of questions for such a test.

Exhibition :—An exhibition of the apparatuses and experiments improvised was arranged on the last day i. e. on 12.6.68.

Number of students who joined the course :—11 (eleven) only.

Failures :—The teachers performed the Iodine test on leaves but could not show the process of photosynthesis due to want of sunlight during the period of the Summer Course.

Kalyani Majumdar
Sadhana Chakravarty
(General Science Group)

SUMMER VACATION COURSE IN SCIENCE HELD BETWEEN
5.6.68 AND 12.6.68 AT THE INSTITUTE OF
EDUCATION FOR WOMEN.

Unit—Formation of Images :

The unit will be organised on the following pattern :

- (a) *Over view or scope* :—To impress upon the teachers that the understanding of the formation of images is the main purpose of Geometrical optics.
- (b) *Objectives* :—(i) *Major concepts* :—Formation of images is a *consequence* of the three basic concepts of Geometrical optics, viz—
 - (a) Rectilinear propagation of light
 - (b) Reflection of light
 - (c) Refraction of light

Subconcepts :—(a) Rectilinear propagation of light is only an approximate phenomena.

- (b) Reflection of light obeys certain laws.
 - (c) Refraction of light obeys certain laws.
 - (d) Pseudo images are formed as a consequence of rectilinear propagation of light and True images are formed either due to reflection or refraction or both.
- (ii) *Skills* :—Teachers are expected to acquire skill in pursuing the basic concepts to a greater depth than is necessary for teaching their classes. as well as in presenting the unit at the students, level of intelligence in an effective manner.
 - (iii) *Attitudes, interests and appreciations* :—Teachers' attitudes, interests and appreciations are expected to be two fold in

respect of each—to be interested in equipping themselves with greater knowledge about the concepts from Geometrical and physical optics, and for their students ; level leading their students to infer principles involved in an experiment done or an experience recalled.

(c) *Content* :—Explanation of each concept

Sub-concept (a) Discussion of wave theory, corpuscular theory quantum theory and dual nature of light (Enrichment information)

(b) & (c) Discussion of the approach to be followed in presenting topics of the syllabus of this unit to the school Students in respect of reflection, refraction, both at plane and spherical surfaces. How the laws can be deduced from improvised apparatuses.

(d) Discussion of the formation of pseudo and true images, real and virtual image, drawing of diagrams illustrating the formation of images by plane and spherical surfaces and by lenses.

(d) *Teaching hints* :—(i) To demonstrate to teachers how laws of reflection, the phenomena of refraction, the construction of lenses, phantom doll arrangement can be shown easily with improvised apparatuses.

(ii) To encourage them to help their students to set up, as they will be instructed to set up experiments on total reflection, making of Kaliedoscope, arranging lenses to form a telescope etc.

(iii) No Audio-Visual aids will be necessary—instead of this students themselves will be asked to draw diagrams of image formation by two mirrors at right angles to one another and by a telescope etc.

(iv) No excursion in aid of understanding and appreciating the subject matter is contemplated.

(v) These have been referred to under the main heading (c) contents.

(vi) Discussion to be taken up in two levels—one for refreshing the memory of the teachers by taking up advanced consideration of the topic as in C a, the second for book and corner understanding of the topic in detail for better equipment for facing the class.

(vii) Different groups of Teachers will be made responsible for collecting facts from books to be recommended, improvising apparatuses, arranging experiments and devising evaluation tools.

(e) *Evaluation*—Tools and techniques.

Evaluation tools most suitable for this unit at hand will be

1. Essay type questions,
2. Objective type questions.
3. Drawing of diagrams showing the formation of images in various cases.
4. Activities leading to improvising unconventional simple apparatuses for deducing laws of reflection and refraction, for showing the construction of lenses out of spherical surfaces and arranging phantom self experiment and lenses for indicating the principle of construction of telescopes etc.

(f) *Reference materials* – Books :

1. General Science Hand book of activities (N. E. E. R. T), Delhi.
2. You and Science.
3. Teaching General and Physical Science Richardson and Cahool.
4. Measurement of Evaluation in the Secondary School – Greene Jorgensen and Gerbrich
5. Concept of Evaluation in Education (NCERT) Delhi.

6. Evaluation in General Science NCERT .

Guide : 7. UNESCO source book for Teaching General Science.

8. Any good Text book on optics viz Light by D. P. Raichoudhuri.

Journals : Nil.

(g) Additional Comments : In addition to this unit, difficulties frlt by teachers in presenting any topic to their students of schools will be discussed and approach to those will be indicated.

Sd/-C. C. Choudhury.

Prof. of Scottish Church College

Development of Instructional Material.

SUBJECT : General Science TEACHING UNIT : Formation of Images LENGTH OF TIME REQUIRED : From 5.6.68 to 12.6.68 CLASS : For class IX of schools

(a)	(b)	(c)
Major Concepts (Basic Understanding or "Big Ideas")	Content : Outline	Unit Objectives (Knowledge, Understanding, skills, attitudes, applications)
<p>1. First Group of Concepts</p> <p>Formation of images (as treated by Geometrical optics) is a consequence of the three fundamental or basic concepts</p> <p>(i) Rectilinear propagation of light</p> <p>(ii) Reflection of light</p> <p>(iii) Refraction of light</p> <p>2. Second Group of Concepts</p> <p>(a) Rectilinear propagation of light is only an approximate phenomenon.</p> <p>(b) Reflection of light obeys certain laws.</p> <p>(c) Refraction of light obeys certain laws.</p> <p>(d) Images (pseudo) are formed as a consequence of rectilinear propagation and true images due to reflection or refraction or both at plane and spherical surfaces of separation between two media.</p>	<p>(a) For explaining all ordinary and common phenomena by Geometrical optics, rectilinear propagation is taken for granted.</p> <p>But it is necessary to remember that the real entity in the propagation of light is the wave front and not rays which simply show the path followed by waves. Rays are always perpendicular to the wave front.</p> <p>The so-called image formed on the screen of a pinhole camera, as a result of rectilinear propagation of light, is not a true image in the proper sense, although it has a real existence. It may be called a "pseudo" image.</p> <p>(b) The two laws of reflection of light (like all other laws) were derived from experience and experiments; but can be accounted for by wave theory of light.</p> <p>(c) The two laws of refraction of light were also derived from experience and experiments, but can be accounted for by wave theory of light.</p> <p>N.B. :- All physical laws can only be explained on certain theories or hypotheses.</p>	<p>Light consists of waves, set up in ether the so-called hypothetical medium. This idea of ether is necessary for beginners but at a later stage of understanding the idea of ether may be discarded, light waves being regarded as periodic variation of electric (and magnetic) vectors, in time and space.</p> <p>Huygen's contribution to the development of wave theory rests on the idea of secondary wavelets generated and that of the construction of new wave-front as the envelope or common tangent plane to all such wavelets.</p> <p>Reflection and refraction can easily be understood on this idea.</p> <p>The same idea of obtaining a new wave front is capable of showing that light must get into the geometrical shadow of an obstacle (which is not too big compared to the wave length of light). Thus rectilinear propagation is only an approximate phenomenon.</p>

INSTRUCTIONAL MATERIALS PROFORMA (Continued)

42

SUBJECT :
General Science

TEACHING UNITS :
Formation of Images

LENGTH OF TIME REQUIRED :
From 5. 6. 68 to 12. 6. 68

CLASS :
For class II of school

(d) Classroom Procedures	(e) Student Activities	(f) Student Materials
<p>1. Theoretical – (a) Discussed wave theory, corpuscular theory and referred to quantum theory and dual nature of light for refreshing the memories (regarding these topics) of teachers.</p> <p>(b) Discussed the proper approach to the teaching of the subject by the teachers in General Science class of class IX. Every item was treated in all its aspects in co-operation with the teachers where necessary illustrated by diagrams drawn on the black board.</p> <p>2. Practical – Stress was laid on improvising unconventional simpler apparatuses for demonstration by the teachers to their students, some of which were presented as exhibits on the last day of the course.</p> <p>3. Library references – on every working day a few books were referred to and some of which were supplied to them in the class and their attention drawn to specific items at specific pages.</p>	<p>(d) We see a point of an object when light from that point reaches our eye, along the backward production of the ray that reaches our eye. An image (which is a prototype of the object) is seen along the backward production of the reflected or refracted rays, originally omitted from corresponding points of the object, that reach our eye. Hence the least two such rays are necessary for tracing the path of rays which make a point visible to an eye.</p> <p>1. (a) Teachers-pupils took notes of relevant points, took an active interest in the discussion and drew diagrams and asked relevant questions.</p> <p>(b) Teachers presented their difficulties, and some teachers suggested remedies and all took active interest in the discussion centering round vagueness of ideas, want of ideas, want of practical skill etc. and the ways and means of counter-acting those.</p> <p>2. Teachers gladly accepted the idea of exploring new grounds for improvising apparatuses and actively and co-operatively participated to make the practical work lively and interesting.</p> <p>3. Since in most cases books were presented with reference to pages and articles in this class they divided into groups to get the relevant information.</p>	<p>Image formation can most easily be understood by ray-tracing according to the laws of reflection or refraction as the case may be. (Real and virtual images, their distinction and all applications of reflection and refraction at plane and spherical surfaces, total reflection etc. taken up for discussing the approach to be followed by the teachers for presenting these topics to their students of class (IX).</p> <p>2 (i) Improvised apparatus for deducing laws of reflection: materials used – Cardboard, protractor, pencil, paper, black paper, torch light, mirrors. Two arrangements were made – horizontal, vertical positions of mirror.</p> <p>(ii) One student made Kaljedoscope.</p> <p>(iii) Demonstration practised for showing virtual and real images by mirrors plane and spherical and by convex lenses.</p> <p>(iv) Improvised activities to show the nature of two lenses.</p> <p>(v) Arranged phantom doll experiment.</p> <p>(vi) Arrangement for showing principle of telescope made.</p> <p>(vii) Arranged experiments for demonstrating effects of total reflection.</p> <p>(viii) Improvised a simple means of showing refraction of light etc.</p>

SUBJECT :
General Science

TEACHING UNITS :
Formation of Images

LENGTH OF TIME REQUIRED :
From 5.6.68 to 12.6.68

CLASS :
For class IX of schools

(g) Teacher Resources	(h) Evaluation procedures and Techniques	(i) Additional Comments
<ol style="list-style-type: none"> Books referred to in column (f) General Science for Tropical schools – F. Daniel (Oxford University Press) (Books 1–6) The Young Observer – A. Allcot (Books 1–7) Experience of the resource person <ol style="list-style-type: none"> as a Prof. of Physics teaching the subject up to Hons. standard in Scottish Church College. as a teacher of Method and Contents of Physics in the B. T. Department of Scottish Church College. as a teacher of Method and Contents of Physics in the David Hare Training College. as a teacher of Contents of Physics at the Institute of Education for Women. as a resource person in the Extension Service Department of David Hare Training College on many occasions. 	<p>Evaluation tools most suitable for this unit were found to be</p> <ol style="list-style-type: none"> Essay type questions * Objective type questions * Drawing of diagrams showing the formation of image in various cases. Activities leading to improvising unconventional simple apparatuses for deducing laws of reflection and refraction, for showing construction of lenses out of spherical surfaces and arranging phantom doll experiment and lenses to indicate the principle of construction of a telescope etc. <p>* A few selected questions prepared by students working in groups are appended in a separate sheet attached hereto.</p>	<p>Some additional work has been done in respect of another unit "Functions of leaf" as suggested by graduates in Biological Sciences. The unit was analysed and scope determined. Then simple experiments listed were performed by students – except the one for photosynthesis as there was practically no sunlight from 7.6.68 to 12.6.68.</p> <p>Presentation of abstract topics to the students of class IX was discussed and best approach indicated in respect of (i) Work and energy, (ii) Gravitation and gravity, (iii) Friction, (iv) Inertia and (v) Momentum.</p> <p>Miss K. Das, B. Sc. (Hons.) B. T. of Institute of Education for Women rendered all help whenever sought for by the teachers for which she deserves thanks from them as well as from me.</p> <p>Sd/- C. C. Choudury, 12.6.68 Senior Lecturer in Physics, Scottish Church College and part-time lecturer in Institute of Education for Women. (Resource person in Science for this Course).</p>

1. Essay type questions

- (1) A sheet of ground glass becomes almost transparent when wet. Why ?
- (2) A crack in a glass pane when viewed from a suitable direction appears shining. Why ?
- (3) Regular reflection is important to us in various ways but irregular reflection is none the less important—explain.
- (4) Foucault's experiment on velocity of light in a denser medium confirmed wave theory of light and decided against the corpuscular theory. Explain.
- (5) When we understand the nature of light, we realise that rectilinear propagation is but an approximate phenomenon. Explain.

2. Objective type questions

- (a) Recall type—
- (i) A convex lens is known as - lens due to its main property.
 - (ii) A true image is not formed by a pin-hole camera. it may be called an - image.
 - (iii) The ideas of secondary wavelets and wave front as put forth by Huygen were unable to explain -
- (b) Alternate response type—

True or false type—(i) Twilight is possible due to refraction.

(ii) An image inverted with respect to an object is always a real image.

(iii) If the atom had no rotating electron around it, we would not get light.

Yes or No type—(i) Do we see an infinite number of images of a candle flame placed between two parallel mirrors ?

(ii) Whenever there is refraction, it is attended with reflection. Is the converse true ?

(iii) Is light a particle or a wave ?

Sd/- C. C. Choudhury.

NAME OF THE PARTICIPANTS OF THE SUMMER VACATION TRAINING COURSES OF 1968-69

Science

<i>Name of participants</i>	<i>Name of School</i>
1. Kalyani Majumdar	Muralidhar Girls' School
2. Sadhana Chakraborty	Kalighat Oriental Academy for Girls
3. Jharna Datta	Narayani Sikshalaya Girls H. School
4. Smriti Kana Ghose	Saradeswari Balika Vidya Mandir
5. Sephali Mukherjee	Jodhpur Park Girls' School
6. Rupali Mitra	Calcutta Children School
7. Jana De	Chandravag Sreekrishna Girls H. S. School
8. Jharna Mazumder	Khantura Girls H. S. School
9. Susama Das	Arbelia Balika Bidyalaya
10. Tutul Guha	Bethune Collegiate School

Mathematics

11. Abantika Das	Muralidhar Girls' School
12. Malaya Mitra	Ichhapur Girls' School
13. Sati Chakraborti	
14. Bidita Ghosh	Bijoy Balika Vidyalaya
15. Prativa Bhattacharya	Annada Sundari Hindu Balika Vidyapith
16. Meena Chakraborti	Do
17. Jharna Sen	Jodhpur Park Girls' School
18. Sovana Dam	Charigram Sri R. K. Adarsha Balika Vidyalaya
19. Khuku Dey	Kalyangarh Sanskriti Sangha Balika Vidyalaya
20. Nandita Dasgupta	Balika Siksha Sadan

Geography

- | | |
|------------------------|---------------------------------------|
| 21. Anima Bose | Garulia Balika Vidyalaya |
| 22. Sandhya Ghose | Do |
| 23. Prabhabati Ghose | Annada Sundari Hindu Balika Vidyalay |
| 24. Sandhya Ghosh | Mugkalyan Girls' School |
| 25. Anita Roy | Victoria Girls' School |
| 26. Juthika Chatterjee | Jodhpur Park Girls' School |
| 27. Bul bul Banerjee | Narayani Sikshalaya Girls' H. School |
| 28. Subhra Pal | Kumar Ashutosh Institution for Girls |
| 29. Uma Chatterjee | Balika Siksha Sadan |
| 30. Sarmistha Majumdar | Sanskriti Sangha Balika Vidyalaya |
| 31. Dolly Chakraborti | South Bisnupur Girls' High School |
| 32. Rekha Sarkar | Arbelia Balika Vidyalay |
| 33. Maitreyi Mazumder | Do |
| 34. Tripti Sen | Chandravag Srikrishna G. H. S. School |
| 35. Krishna Datta | Do |
| 36. Sneha Ghosh | Bagnan H S. School |

PUJA VACATION COURSE

A REPORT ON THE DAILY ASSIGNMENTS ON SOCIAL STUDIES (8th - 16th OCT., 1968)

The training course on Social studies began on 8.10.68 when Dr. Kalyani Pramanik, Principal, Institute of Education for Women, while inaugurating the course—gave an illuminating lecture about the scope and object of Social studies. Prof. Kalishankar Gupta, Prof. Subodh Kumar Mukherjee and Prof. Pijush Kanti Chatterjee were the Resource Persons connected with this course.

The participants were divided into three groups. A unit called "Unity in Diversity" was selected as a project. This unit was divided into three sub units viz. Geographical, political and cultural—national integration being the common theme of the proposed unit.

The learned experts gave us a clear idea about the charts and various maps by which we might approach this topic in a natural way. Our lecturers also gave us some hints about the drawing of maps with reference to Alexander's invasions and many other foreign invasions into India, as that of the Sakas, Persians and the Huns. They also pointed out how the culture of the foreigners was assimilated by the Indian culture.

They assisted us in the work of projection. We learnt the use of Epidiascope, linograph, bargraph etc. Then the Co-ordinator met us and consulted the Resource Persons about the excursion which would be organised on 11.10.68 at Birlapur Jute Mill. After that we performed some other seminar work. We never lost sight of our integrated approach to our project all through our activities.

On 9.10.68 we also did the same thing.

On 10.10.68 we made some experimental work in the laboratory and projected some outline maps and sketches. After the mid day recess

Prof. P. K. Chatterjee met the group and delivered an illuminating talk on the meaning and scope of social studies. He also referred to some reference books intended for students and the teachers. He suggested the ways and the means for improvement of the teaching method and also discussed, in length, on the evaluative tools, and techniques.

On 11. 10. 68 we paid a visit to the Birlapur Jute Mills and had a unique experience about the different processes connected with the jute industry.

On 12. 10. 68 from 11 A.M. to 1 P.M. we worked on charts models and maps. After the recess an Officer of the Census Department Sri Sukumar Sinha, met the group and gave a useful talk on the objects and concepts of social studies. He also explained the meaning and scope of social studies stressing on the aspect of unity in the midst of diversities. By setting some examples, he traced the unity among the various kinds of shelter, food dress and also religion. He suggested that the students of social studies should start from the knowledge of man in relation to his environment, so that they could introduce various bonds of union i.e. unity in their diverse situations.

On the 14th and the 15th we continued our work as scheduled.

A valedictory function was organised on 16. 10. 68 in the afternoon. Sri Gour Chandra Mallick, Deputy Secretary, Education Department, Govt. of West Bengal, kindly presided over the function. The highlights of the programme included songs, recitations, reading of the reports, speeches and comic sketches.

We also arranged for an exhibition in which pictures, diagrams and scholastics etc. that were executed during the course were displayed.

Before concluding our report, we sincerely express our heart-felt gratitude to our teachers the Co-ordinator and others who spared no pains to make our seminar a success. Needless to add that we imbibed a sincere urge for activities which constitute a very important aspect of social studies and naturally a right attitude towards the subject grew in us. The experiences gathered in our seminar, will surely help us a lot in our actual class room situations while teaching social studies in our respective schools.

SOCIAL STUDIES UNIT – "INDIA OFFERS UNITY IN DIVERSITY"

I. *The Environmental Approach (on the Geographical Unity)*

(1) India's physical features are too uneven. In spite of this, mountains in the north and seas and mountains in the south have helped maintain her geographical unity. 'India's geography and history bring her inevitably into the centre of the Asian stage.'

(2) Food-habits : Though different climates influence difference in food-production and consequent food habits, yet men in all states have to produce food through hard labour. There are also some items of food that are taken in general all over India. People in states of surplus food help their countrymen who are in dire need of food stuffs.

Problems : (i) Increase in population

(ii) What problems has a cultivator on the Brahmaputra plain which a cultivator on the Ganges plain does not have ?

(3) Clothing : Difference in cloth-production and clothing among different men is due to different climates, occupational needs, and fashions ; yet decency and aesthetic factor in clothing are common to all mankind.

(4) Shelter : Influence of natural and social environment on housing ; yet good planning of our house, school, village and town is a crying need everywhere today.

Problems : (i) Crumbling of the joint-family system

(ii) Schemes in big towns.

(5) Transport and communications : The part played by transport (i) in rural areas, (ii) in urban areas, (iii) on desert areas, (iv) in mountains. Shrinkage of distance—conquest of space.

II, *The Historical Approach (on the political unity)*
(Hints only)

In the history of evolution of man's civilization, we find all the specimens of different ages—paleolithic, neolithic, copper and stone age, iron age—all in India. In different times, we find the advent of different nations in India—viz, The Dravidians—Mongolians—The Aryans—the Persians, the Greek, Sakas, Kushanas, Hunas, the Muslims, the Dutch, the French, and the English. But political unity was always there in India. Our country possesses that unique power of assimilating all that are good in other's culture.

The age of the Epics—Chandragupta, the first sovereign monarch in India—the Tughlaks and the Mughals, Sivaji—all of them tried to unify India through their administrative policy.

III. *The Sociological Approach (or the Cultural Unity)*

Religion, language, literature, sculpture and architecture, music and dance ; ideals of citizenship ; the U.N.O. and India—in all these spheres we find an idea of unity in diversity prevalent in India.

For the development of skill the following experience-giving activities may be suggested :—

1. Draw a map of the Indian Union to show the constituent states.
2. Draw a sketch dividing India into zones on the basis of different clothings worn.
3. Plan for the decoration of your own house or school.
4. Arrange a visit to the Kidderpore Docks, the Ramkrishna Mission Institute of Culture.
5. Shows of documentary films on food, clothing, shelter, transport, religious reformers, music and dance and temples and architecture of India, election in India, the U.N.O. etc.

For the purpose of developing right type of attitudes and interests in pupils, some presentation activities, as noted hereafter, are suggested.

- (i) Debate—1. India's unity will suffer if she is divided into states of small area.

2. Pressure of over-population on land hampers agricultural production.
 3. European dress will ultimately oust the National dress of India.
- (ii)
1. Collect specimens of rice-varieties and arrange for an exhibition.
 2. Show, through charts or models, the homes of different ages from stone-age shelters to modern homes.
 3. Show, through charts and maps, the development and routes of railways, aeroplanes and National Highways of India.
 4. Arrange a mock symposium with great religious reformers of India.

LIST OF TEXT AND REFERENCE BOOKS

1. 'Itihas' (B)—Rabindranath Tagore
2. 'Kalantar' (B)—Rabindranath Tagore
3. 'Itihaser Mukti' (B)—Atul Chandra Gupta
4. 'Bharatiya Sadhanar Aikya' (B) — Dr. Sashibhusan Das Gupta
5. 'Hindu Samajer Garan' (B)—Nirmal Kumar Bose
6. Our Growing Human Family—Minoo Masani
7. Our Food—Minoo Masani
8. 'Samaj Parichaya'—Pijush Kanti Chatterjee & Jyotibhusan Chaki
9. 'Desh, Samaj O Sanskriti' (B)—Kulada Prasad Chowdhury & Kalyan Das Gupta
10. 'Samajvidya Prabeshika' (B)—Benoy Ghosh

EVALUATIVE TOOLS

When the teachers of Social Studies are satisfied that the students are quite acquainted with the subject matter, they have to evaluate the following :—

- (a) Content knowledge ;
- (b) Critical judgment ;
- (c) Attitude and interest ;
- (d) Skills.

The necessary tools regarding this type of evaluation will be as follows :-

(A) *Oral Test* : Oral tests should be taken so that the pupils can supply correct answers to exhaustive and searching questions.

- (B) *Written Test* : (a) Essay type
(b) Short-answer type
(c) Objective type.

(a) Essay type :—e. g.,

(1) Develop the idea that India offers unity in diversity.

(2) How would you plan for a new unified India ?

(b) Short-answer type :—e. g.,

(1) What differences do you find in India from the geographical cultural and political standpoints ? How would you plan for a new unified India ?

(b) Short-answer type :—e. g.,

(1) What differences do you find in India from the geographical, cultural and political standpoints ? How would you try to remove these differences ?

(2) Explain, how any one of the following can help in the task of unification of the country :—

Religion, language, literature, dance, music, the Indian Constitution, the National Games, the National Song.

(c) Objective tests :—

(1) Match the subjects of the left-hand column with those in the right-hand ones :

1. Puddhism

The Koran

2. Islam

Rammohan

3. Christianity

The Tripitakas

4. Brahmasamaj

The Bible

5. Hinduism

Chaitanya

6. Bhakticult

The Vedas

(11) Underline only the right answer :—

- (a) The Satyagraha movement was first conducted by—Subhas Chandra Basu, Jawaharlal Nehru, Gandhiji, C. R. Das.
- (b) “Din-Ilahi” was introduced by—Hazrat Mahammad, Kabir, Nanak, Akbar.
- (e) Arrange the following in a chronological order (put the number 1, 2, 3 and so on) Vivekananda, Chaitanya, Ramkrishna, Hazrat Mohammad, Goutama Buddha, and Jesus Christ.

Testing of attitude and interest :—

Teachers' duty will be to develop among the students a fellow-feeling and a sense of tolerance and co-operation.

For evaluation purpose, teachers may conveniently use a 5 point Attitude Scale and an Interest Inventory.

Testing of Skills :—

To arrange charts on dress of India, housing pattern, modelling different religious centres of India, to draw maps on cultivation, transport and communication of India, showing of the areas with different languages spoken. Assignment can also be given to the students to collect some sayings of Shri Ramkrishna, a few Dohas of Kabir and their Bengali translation, teachings of some religious reformers on caste prejudice and untouchability.

Group Work—on language problem, housing problem, food problem etc.

All these tools of evaluation may give some indication of the attitude of the pupils. In addition to these, various other techniques can be adopted according to convenience :—

- (a) Observation : The teacher in his diary-book may keep a note by observing the pupils doing some activity, in various situations, their relation with fellow pupils and playmates, their attitude,

feelings and creative interests in various activities. In this respect, the teachers must be definite as to what they are looking for, and the observation must be very intensive and thorough.

- (b) Daily Diary : The daily diary kept by the pupil is another important device of evaluation process.
 - (c) Cumulative Record : This record should show the pupil's attitude, interest, special traits, preferences, academic achievement, leisure-time activities, special aptitude, etc.
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NAME OF THE PARTICIPANT TEACHERS OF THE
PUJA VACATION TRAINING COURSE
HELD FROM 8TH TO 16TH OCTOBER '68.

Sm. Sandhya Ghosh	Garulia Balika Vidyalaya
„ Gita Das Khara	Garulia Balika Vidyalaya
„ Milan Bose	Khantura Girls' Higher Secondary School
„ Sandhya Chatterjee	Saradeswar Balika Vidya Mandir
„ Anima Sarkar	Bijaynagar Balika Vidyalaya
„ Juthika Bhowmik	Prafulla Sen Girls' H. S. School
„ Susama Das	Arbelia Balika Vidyalaya
„ Rama Das	Kalighat Girls' High School
„ Basanti Som	Kalyangarh Sanskriti Sangha Balika Vidyalaya
„ Mira Sen	Binodini Girls' H. S. School
„ Dipika Dasgupta	Santamayee Girls' H. S. School
„ Sneha Ghosh	Bagnan Girls' H. School
„ Chinu Saha	Sri Ramkrishna Vivekananda Nari Siksha Mandir
„ Bithi Sircar	Sarada Ramkrishna Balika Vidyalaya

TEACHING OF ENGLISH POETRY.

The teaching of English poetry is often regarded as a very difficult branch of language teaching in our secondary schools. An average teacher may try to teach poetry changing the verses into the correct word order and by disentangling the difficult constructions. He believes that the success in teaching poetry lies in interpreting clearly the involved subject matter.

Actually poetry is not meant to improve the language skill of pupils. "Poetry is enjoyment first, second, third and fourth", says Prof. Strong. The general feeling left on pupils by a poetry lesson should be one of enjoyment. The beauty and thought involved in them should be transferred directly to the pupils. The pupils must be able to share the poet's enjoyment and imagination. Poetry is a thing of beauty and it raises this material world to a higher state; from the hard realities of a work-a-day world to the realms of fancy.

By teaching poetry, teachers should train children in appreciation by placing before them what is best and most beautiful in language. The aesthetic aim in teaching poetry should always predominate over the intellectual aim. A poet composes poetry in order to give expression to his best and highest thoughts, to his strivings after ideals of beauty and truth and in order to communicate the message he has to the world. So the primary aim should be to improve their joy and increase their power of imagination. It should be read rather for inspiration than for information. Imagination is the very stuff of which poetry is made. Imagery is the power of creating mental pictures. The poet talks in a picture language and that is a language children can understand well, for they love pictures. In some poems imagery is called by vivid description of scenes or incidents. At other times figures of speech are employed to produce word pictures.

All good poetry is the overflow of powerful emotions. Poetry takes its rise in the emotions of the poet and stirs the emotions of the reader.

Poetry helps to aid memory, It is easier to memorise because of its rhyme and rhythm. We enjoy repeating it and it comes into our hearts spontaneously. Sentence patterns stick very easily to mind almost without effort and unconsciously. Pupils may be given opportunities of expressing the rhyme and rhythm by singing the lines, clapping their hands or beating time. If they were done effectively, they will bring out the beauty and music of the verse.

How can the teaching and learning of English poetry be successfully carried out? It is difficult to lay hard and fast rules regarding methods of teaching English poetry because it is one of the subjects which can be taught in a variety of ways. First of all the poem may be read aloud or preferably recited or sung by the teacher. He should not stop at this stage to explain anything. If this is done expressively it can prove more than half of the appreciation. Then it may be useful to explain allusions or difficult phrases beforehand so as to avoid interruption during the lesson. This will enable pupils to follow the poem more easily and with greater interest. Concerning a story or a narration the teacher may give the introduction and then let the pupils read the rest for themselves. This will arouse their curiosity. After the preparation the central idea with the subordinate ideas may be elicited.

After dealing with the subject matter, the details of language can be taken. In language study, the teacher should point out the beauty and suitability of words and phrases.

Next comes appreciation. It is not so much what the poet says that is important as how he says it. So we must concentrate on the poetical form. But we must be satisfied if children appreciate a poem at their level and should not expect them to appreciate it at ours. Deeper appreciation comes with years and experiences. At the end of the poetry lesson the teacher may recite the poem again or sing it and a few children may be asked to read it if they have really entered into the spirit of it.

As an assignment the pupils may be asked to memorise those stanzas or lines that appeal to them.

It follows as conclusion that the teachers of English poetry should guard themselves against squeezing the last drop of meaning from the poem. We must try to let a poem gradually make its impression so that it reveals more in itself at each reading. The learning and teaching of English poetry must afford an all round development of a full-fledged personality which may remain undeveloped in a purely intellectual curriculum. It must lead to the emotional, imaginative, cultural, intellectual, and aesthetic development of the child.

Shri Graceamura Chacko.
B. Sc. B. Ed.
St. Classis C. G. H. School
Trichur (Keral State)

ANNUAL REPORT

April, 1968—March, 1969

Sm. Aparajita Ray
Co-ordinator

Introduction

During the year under review the Extension Services Department of the Institute of Education for Women, Calcutta made an appreciable progress. The programme for the year with aims and objects were detailed at the commencement of the year and as the year rolled on efforts were made to achieve as near as possible to the targets. One significant achievement of the year was the popularisation of the Extension Services work in and around the suburbs of the metropolis of Calcutta.

A number of institutions in such areas took keen interest in getting acquainted with the ideas, plans and programmes of the Extension Services Department. Another encouraging feature is that quite a few Secondary Schools for Girls which were so long not associated with the diverse activities of the centre expressed their willingness to participate in our schemes for school and instructional improvement. It is gratifying to note that our endeavour in motivating the progressive schools to undertake the Developmental and Experimental Projects in particular subject areas is meeting with greater success than before. As a result newer techniques are finding popularity.

Not only in the suburbs of the metropolis, the Extension Services programmes were even extended to an important district of this state in Midnapore and Jhargram, a subdivision where the school population is mainly composed of backward classes in rural areas. It was noticed that girl students showed utmost thrill and zeal for scientific and direct methods of instruction introduced and demonstrated by the officers of the Department. It was felt that more of these programmes should be popularised in institutions of such type and that Extension Services work should have more free play and more funds to bolster up different meaningful schemes.

We may now state our activities for the year (April, 1968—March, 1969) in brief :

I. PROGRAMMES INITIATED BY THE EXTENSION SERVICES CENTRE/UNIT ON ITS OWN.

1. *Summer Vacation Training Course* :—

Summer Vacation Workshops—in Mathematics, Science and Geography from 5th. to 12th. June, 1968. ⁽¹⁾

2. *History Teachers' Conference* :—

History Teachers' Association of Secondary Schools for Girls held in May, 1968. ⁽²⁾

3. Conference of the Headmistresses held in May, 1968. ⁽³⁾

4. World Unity Day held on 9th. August, 1968. ⁽⁴⁾

5. *School Guidance Services* :—

For rendering required help and guidance in the above matter and for discussing the main objectives of Extension Programmes and activities various institutions were visited regularly, viz. :—

- (1) Multipurpose Govt. Girls' High School, Hastings House, Alipore.
- (2) Baghbazar M. P. Girls' School.
- (3) Brahmo Balika Sikshalaya.
- (4) Jodhpur Girls' School.
- (5) Sakhawat Memorial Girls' School.
- (6) Victoria Institution.
- (7) Madhya Kalikata Balika Vidyalaya
- (8) Bethune Collegiate School
- (9) Calcutta Girls' Academy.
- (10) Arya Kanya Vidyalaya.

(1) Vide P. I and PP. 4 to 46 for detailed report.

(2) Vide P. I for details.

(3) Vide P. I for details.

(4) Vide P. 2 for details.

- (11) Chetla Girls' School.
- (12) Beltala Girls' School.
- (13) R. C. Mitter Girls' School.

6. *Ancillary Activities* :—

In the month of September, 1968 steps were taken to activize the Experimental Projects scheme for the year 1968-69 in three fields viz,— English, Geography and Psychology in the two Government Girls' Higher Secondary Schools in Calcutta and Jhargram (Midnapore). The draft plan on the School Improvement programme formulated in the Co-ordinators' Conference at Gauhati was also given due attention. For the above purposes consultation-meetings were held with the Principal, and the Evaluation Officer of the Bureau of Psychological Research and Training as well as with the Co-ordinator and teaching staff of David Hare Training College, Calcutta.

7. *Puja Vacation Workshop* —

Puja Vacation Training Course in Social Studies was held from October 8, 1968 to October 16, 1968. ⁽¹⁾

8. *Conference of Heads of Institutions* :—

A Conference of the Headmistresses of Secondary Schools for Girls was held in February, 1969. ⁽²⁾

9. *Practical Training Course in English* :

A practical Training Course on English Teaching in Secondary Schools was held from March 26 to March 28, 1969 in collaboration with Institute of English, Calcutta. The main objective of the course was to help the teachers in the classroom presentation of selected aspects of English teaching. Actual Demonstration Lessons were given on English teaching in three different standards as follows :—

Class VI—Structural Item

Class VIII—Prose Passage

Class X—Teaching of Poetry

⁽¹⁾ Vide P. 2 & PP. 46–55 for details.

⁽²⁾ Vide PP. 2 & 3 for details.

Teaching staff of the Institute of English who conducted the lessons were Mr. R. Hindmarsh, Director of Studies, Prof. P. Mahato and Sm. Manjusri Sen. The discussion meetings were held in the afternoon. Seminars were conducted by the staff members of the Institute of English along with Sm. A. Bose, Vice Principal of the Institute of Education for Women and Sm. Sadhana Guha of the Sakhawat Memorial Girls' School.

The gathering was fairly large. The Headmistress of different institutions, subject-teachers, members of the Teachers' Training Colleges and B. T. trainees from various institutions in the city—all evinced a keen interest in observing the actual demonstration lessons and participating in the lively discussions which followed the classes. The schools which offered the most enthusiastic co-operation to the Extension Department were the three Bengali medium schools viz., Sakhawat Memorial Girls' High School, Sir R. C. Mitter Girls H. S. School and Chetla Girls' H. S. School.

The course proved to be extremely stimulating and instructive. It was unique and unconventional in the sense that the usual lectures on methodology and phonetics did not figure at all in the programming of the plan. The teacher-participants felt strongly that this sort of a course was much more useful than the usual ones where we have a lot of talking and passive taking in.

10. PROGRAMMES SUGGESTED BY DEPARTMENT OF FIELD SERVICES

10. (i) *Experimental Project 1968-69*

In connection with the Experimental Project undertaken by Rani Benode Manjari Government Girls' Higher Secondary School, Jhargram (Midnapore) a visit was paid to the said school by the consultant Dr. K. Pramanik and A. Roy, Co-ordinator. The Project work relates to Geography, viz., "A study of the Efficacy of Different Methods of Teaching Geography in Schools." The Teacher concerned and assistants were given necessary instructions to implement the scheme stage by stage and report the results to the authorities. The Consultant & the Co-ordinator guided the starting of the experimental work with the school pupils of the eighth standard and they received enthusiastic co-operation

from the Head Mistress and other Senior members of the institution. A large number of useful materials in the form of pictorial maps, pictures, books, pamphlets and test items collected from the U.S.I.S. and the Bureau of Educational and Psychological Research, Calcutta, was supplied to the school for ready use. Filmstrips on the subject were also given to enthuse the school pupils for the work. The response to the whole scheme has been greatly encouraging and satisfactory progress in the work has been made till now.

In connection with this visit tours were also undertaken by the Co-ordinator in a few Muffasil schools in Jhargram and Midnapore for popularising the Seminar Readings and Good School Practices Programme. Brochures and booklets on these subjects were also distributed to the schools.

The project on Psychology namely "An Enquiry into the quality of Intellectual Progress and Mental Health of the pupils of class VIII" was initiated in the Government Sponsored Baghbazar Multipurpose Girls' School, Calcutta. Sm. Kalyani Majumdar, a member of the teaching staff of the Institute of Education for Women and Sri. K. K. Chatterjee, Evaluation Officer, Bureau of Educational & Psychological Research have rendered necessary guidance and directions to the teacher-conductor. In this connection several tests namely Intelligence Tests, Rorschach Tests and Calcutta Inventory Tests have also been administered to the students concerned.

The third Project on "Improvement of Composition work in English" was also started in right earnest by the above mentioned school, but unfortunately the whole plan has been dropped as the teacher-conductor has given up her service in the school and no proper substitute could be selected in her place to carry on the work.

(ii) *Experimental Project for 1969-70*

The first workshop on Projects and Experiments for the academic year 1969-70 was held from March 20 to 22, 1969. Thirteen teachers from 12 schools attended the workshop. Resource Persons, five in number, came from Sakhawat Memorial Girls' School, Sri Sikshayatan College,

Institute of Education for Women, Alipore, and National Library. Outline plans were drafted in three subject areas, viz., English, Mathematics, and Library Service with expert guidance and help.

(iii) The second workshop on projects and experiments was held from August 7 to 9, 1969. Resource Persons being the same, Project plans were finalised.

These are as follows :—

- (1) Developing Diagnostic Tests through Contextualized material to diagnose weaknesses in comprehension and application of verb-forms in English and using Remedial Programmes. (English)
- (2) Importance of the modern psychological methods in teaching deductive Geometry in Class VIII. (Mathematics)
- (3) A project to develop the concept, skill and accuracy of reasoning in Plane Geometry and ability to solve real and abstract geometrical problems. (Mathematics)
- (4) Developing Reading Habits of the middle class students by effective use of the Library. (Library)

11. *National Integration Scheme.*

In connection with the project on National Integration sponsored by N.C.E.R.T. Delhi the Extension Department finalised the selection of two teachers of Secondary Schools, one from the city of Calcutta. Multi-purpose Government Girls' High School, Alipore, and another from Sibpur Hindu Balika Vidyalaya., Howrah.

12. *Services*

(i) *Use of Library —*

- (a) Education booklets like New Trends in School Practices, Teacher Education etc. were freely distributed to schools and also to interested faculty members of the Institute.
- (b) Books issued to B. T. Students — 400 Approx (Annual)
- Books issued to outsiders — 60 " "
- Books issued to college staff — 40 " "
- Reading Room used by — 80 " "

(ii) *Audio-Visual education and utilisation of equipment provided to the centre —*

- (a) 18 Films were shown to college. These were lent to the Department by the Govt. of W. Bengal's Film Department (Home Publicity and Public Relation) & by T. C. M.
- (b) Epidiascope, Filmstrip projector, Tape-recorder and Camera were used in manifold college and extension activities.

(iii) *Educational visits*

- (a) To Bengal Chemical Pharmaceutical Works, Maniktolla, Calcutta during the Summer Vacation Workshop.
- (b) To Birlapur Jute Mill, 24 Parganas during the Puja Vacation Training Course

(iv) *Publication*—The "Teachers' World", the educational journal of the Extension Services Department was published in 1968 as annual number.

13. *Advisory Committee Meeting*

The newly constituted Advisory Committee of the Department held a meeting on January 14, 1969.

14. *Any other matter the centre may like to report.*

It is very strongly felt that the scope of Extension service activities should be widened in the Muffasil area where the less progressive schools are much handicapped for lack of proper planning of new schemes for instructional improvement and effective guidance.

REPORT ON THE MEETING OF THE ADVISORY COMMITTEE HELD ON JANUARY, 14, 1969

The newly constituted Advisory Committee of the Department of Extension Services held its first meeting on January, 14th, 1969. The meeting was attended by seven members including the Chief Inspector, Women's Education, District Inspectress, Calcutta District, Vice-Principal, Institute of Education for Women, two teacher representatives and the Co-ordinator who is the Secretary of the Committee. Dr. K. Pramanik, Principal and Hony. Director, President of the 11 member body took the chair.

The important items for discussion as per agenda included (a) planning of new programmes involving schools in the Suburban and Muffasil areas ; (b) collaboration with the Bureau of Educational & Psychological Research for execution of programmes in three important fields of Evaluation, Guidance and Mental Health and (c) summoning a conference of Head Mistresses and Head Masters for joint discussion and formulation of plans on National Integration. Two other items which figured prominently were the formation of a Regional Committee for recommending suitable books to be used as reference material by the teachers in Secondary Schools and the organization of Mobile Library Service after sufficient stock of books has been ensured.

After the usual practice of confirming the proceedings of the last meeting was followed, Sm. A. Ray, co-ordinator, presented her report delineating the major programmes and activities undertaken by the Extension Service Department, during June, 1968 to December 1968.

It was resolved that

1. Seminar Reading Programme should be publicised to a great extent.
2. It was felt necessary that the Co-ordinator should intensify her programme of school visits and thereby establish greater contact

with schools in city, suburban and maffasil areas to motivate them to introduce new educational ideas and procedures.

3. It was further resolved that a conference of the Heads of Institutions should be summoned to popularise the School Improvement Programme and Good School Practices Scheme.
 4. The need for holding Summer Vacation Courses was strongly emphasised. The subjects specifically mentioned were—Economics, Bengali (Classes VI & VII) & Logic. Time and Date were to be fixed up later.
 5. It was further resolved that as "Improvement of English Teaching" was a vital academic problem of the day. Demonstration lessons on English teaching in Secondary schools by the Institute of English, Calcutta should be arranged by the Extension Service Department. It was also felt desirable to arrange observation of Demonstration lessons in schools in various other subjects by groups of teachers from different institutions.
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SEMINAR READING PROGRAMME

All heads and teachers of Secondary Schools are invited to participate in this programme. The objectives of this programme are to stimulate them to write about the knowledge and experience they have gained through experimentation, study and creative thoughts about educational problems. This will be a great contribution on their part to the proper understanding and clarification of various educational issues.

